Occidental Medical Times.

Vol. IV. AUGUST, 1890. No. 8.

A CASE OF ERYTHEMA NODOSUM TERMINATING IN SUPPURATION.

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The disease in question for which Hebra recommended the name, ''dermatitis contusiformis,'' because the eruption undergoes the same change, in color, as a blood-extravasation resulting from trauma to the skin, is generally described as being characterized by the development of red, bluish red or greenish nodular swellings, varying in size from that of a cherry to that of a fist; which swellings usually, and in many cases exclusively, show themselves on the extensor side of the leg. The efflorescence has, however, also appeared on the upper extremities, in the face and on the mucosa of the mouth, the respiratory and even the digestive tract. Although some authors, as Kaposi, say that the nodes never suppurate, a few cases have been reported (Hardy and Purdon) where necrosis set in, giving rise to the development of pustules. The following case illustrates this uncommon termination of the disease; its localization and the marked cyclical course of the eruption may also perhaps make the case worthy of mention:

Mrs. H——, aged 60 years, has never been afflicted with any serious illness. When a child she had measles and whooping-cough; since then the only disease to which she has been subject, and that only during the last few years, is sciatic neuralgia. There is no history of lues and the patient has never suffered from articular or muscular rheumatism. Her menstruation was always regular, the climacterium setting in about eleven years ago. On June 15, 1889, the patient first noticed a red spot of the size of a small pea on the dorsal surface of the first phalanx of the right index finger, which appeared slightly raised. She knew of no trauma to the part. The only general symptoms present were a feeling of languor and loss of appetite. As the spot just mentioned gradually increased in size during the following two days, she summoned medical aid.

June 17th: The patient is found to be free from fever. She complains of a feeling of pressure and pain in right index finger. Upon examination of the latter, a lump slightly oval in shape, of a dark red color, with a glistening and tense surface, and having the size and elevation of one-half of a small walnut, is found to take up most of the dorsal surface of the first phalanx of this finger. It has no central depression, but is evenly round on the surface, feels warm, is very tender to the touch, and presents a diffuse border with the adjoining skin. A nodule, light-red in color, of the size of a ten-cent piece and raised about one-half inch above the surrounding surface, is found on the first phalanx of the right middle finger. A similar, but smaller eruption is seen on the same part of the ring finger; and two or three small spots are found on the dorsal surface of the hand. The latter had only been noticed a few hours. The eruption does not itch, and is not present on any other part of the body. There is no pain or swelling about any of the joints. A lead-water lotion is ordered.

June 18th: The nodule on the index finger has assumed a bluish color, being darkest in the centre, while the others have enlarged considerably, both peripherally and in height. At the same time some fever has set in, the temperature being 101.5° F. No change in the treatment.

June 19th: The nodules on the dorsal surface of the hand have further enlarged and more or less conglomerated, so as to include nearly the whole of this surface, and all nodules are now dark blue in color. Last evening a spot had appeared on the face about half an inch below the outer canthus of the left eye, which this morning has developed into a nodule of an oblong shape, bluish in color, and glistening as the others. The symptoms of general malaise have become more marked and the fever has increased to 102.5° F. Salicylate of soda is ordered in 15 grain doses every hour until its constitutional symptoms are apparent.

June 20th: The disease seems not to have spread since yesterday. The nodule on the face looks the same, but those on the dorsum of the hand and the one on the index finger have become whitish in color without having undergone any change in contour, being still tense, and upon pressure show some fluctuation, while in the periphery there is more or less edema. The salicylate of soda is to be continued; warm water applications ordered.

June 21st: The dorsum of the right hand is now one large pustule, which on being incised discharges a half ounce of pus. The nodule on the face is to-day not so dark blue in color. The patient felt chilly during the night and was very feverish. The temperature reached 103.5° F. This morning she feels much better. The salicylate of soda is discontinued—the nausea, deafness and ringing in the ear being very severe; otherwise the same treatment.

June 23d: The patient feels worse to-day. She has more fever (102.5°) and feels much depressed in spirits. Very small nodules have appeared on the dorsum of the left hand, which hitherto was free, and larger ones on the second phalanx of the little, ring and index fingers of the right hand. The nodule on the face is, however, gradually disappearing. Salicylate of soda is again ordered, and a poultice is to be applied to the right arm, where there is considerable pain and edema, with redness extending half way up the arm. The lymph glands are not enlarged.

June 24th: Salicyl intoxication being present, the administration of the drug is stopped. Aside from this the patient seems better. The nodules on the left hand have not enlarged and there is not so much pain or edema in the other hand. The poulticing is continued.

June 26th: There has been no extension of the disease. The eruption on the left hand is gradually disappearing, but the nodules on the second phalanx of the right little, index and ring fingers have become pustules. An ointment of salicylic acid, oxide of zinc and vaseline is ordered.

July 12th: After June 26th no new nodules appeared. The superficial layer of the skin of the dorsal surface of the hand and fingers, which had sloughed away, has been replaced by new skin, except in a few places, where the necrosis had extended into the subcutaneous tissue.

That the case is one of erythema nodosum, I think there can be little doubt. It is true that the localization here is the typical one for erythema exudativum multiforme, but the contour and elevation of the nodes, their painfulness, the uniformity of the eruption, the absence of itching sensations and of the central bluish red depression are characteristic of the former and not of the latter. Furthermore, the change from papule to pustule was not a lifting up of the epidermis so as to form a bulla in the central or peripheral part of the efflorescence, as may sometimes be be seen in the multiform erythema, but an apparent necrosis of the entire node without change of contour, the necrosis setting in about five days after the first appearance of the eruption.

A prominent feature of the disease is, as in this case, the development of the eruption in "crops." On the 15th the eruption was confined to the first phalanx of the right index finger; on the 17th it spread to the first phalanx of the middle and ring fingers and the dorsal surface of the right hand. On the evening of the 18th the eruption appeared on the face, and on the 23d the second phalanx of the little, ring and index fingers of the right and the dorsum of the left hand became affected. That the evolution of the disease was at a standstill from the 18th to the 23d may perhaps been due to the administration of salicylic acid on the former date. Before that the eruption had appeared in new places every one or two days.

The cyclical course, the therapeutic effect of salicylic acid—first observed by Strümpell, the occurrence in the majority of cases of only one attack during lifetime, the general constitutional symptoms which may be prominent or almost absent, depending upon the severity of the case, support the view entertained by some authors, that erythema nodosum is an infectious disease and not an angio-neurosis.

ILIAC ADENITIS OCCURRING IN THE COURSE OF A VESICO-PROSTATIC SCLEROSIS.[1]

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Read before the San Francisco County Medical Society.

Very little has been written on iliac adenitis; the few authors who have made special studies on the subject confess that the origin and evolution of this affection, are not elucidated, and that the diagnosis is difficult and very often uncertain. I desire to present to you a complicated case, in the hope of eliciting a discussion, by which your experience may enlighten this obscure question. The history of the case is as follows: F. P——, aged 54, blacksmith, married, came last February to the Polyclinic, complaining of a swelling the size of a turkey's egg in the right inguinal region and of complete inability to pass urine without the use of the catheter. He appeared emaciated. Clinical examination of the patient did not disclose any hereditary tendencies. Thirty years ago he had on his penis two small sores, which were cauterized and promptly healed without subsequent constitutional symptoms. Eight years later he contracted gonorrhea, which lasted a fortnight.

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[1] Vesico-prostatic sclerosis is what is clinically called prostatism.—Desnos.

Aside from these affections, he has always enjoyed good health, until 18 months ago, when mining at Alta (Placer county), he noticed that the urine was not ejected as freely as before; he was obliged to contract the abdominal muscles to help himself, and at night he urinated oftener. At the same time a very hard swelling appeared on the right inguinal region and probably the internal iliac glands became enlarged, the consequent pressure on the nerves also probably caused the following symptoms of which he complained: bending of body, numbness and pain along both crural nerves down to the foot, but more so in the right leg, which he was unable to cross on the other without the help of both hands. Those symptoms kept increasing, when two months later, in October, 1888, he experienced considerable difficulty in urinating, followed by complete retention.

After three days' suffering, unable to pass water and no physician within reach, he came down to this city, and summoned a doctor who relieved him by withdrawing a chamberful of urine, and ordered a soft catheter to empty his bladder when necessary. No instructions were given concerning the cleanliness and care of the catheter and of the genitals. Soon after, he noticed the iliac and inguinal glands were gradually increasing in size and at the same time the pain was more intense in the hypogastrium, the perineum and the anterior and posterior part of the thigh. Each time his bowels moved, a creamy discharge passed from the urethra; in a few weeks these acute symptoms disappeared, his general health improved, and the glands were reduced to the size of a hen's egg. Last fall, during a heavy rain, he caught cold and the glands again enlarged to their former size.

At his first visit to the Polyclinic, patient relieved his bladder 7 times in the 24 hours—4 times during the night and 3 times during the day. He felt pain at the moment of urinating, and in the intervals. The pain was brought on by fatigue, and by palpation. The quantity of urine voided in 24 hours was 40 ounces, of a density of 1.025; the urea weighed 26 gm., the solid matter 72 gm. The urine was cloudy and slightly alkaline; there was albumin in small quantity. The sediment showed gravel of a phosphatic nature. Microscopical examination revealed pus, vesical epithelium of superficial and deep layers, granulo-fatty casts and micrococci. Tubercular bacilli were sought for several times, but with negative results. The anterior portion of the urethra is normal; its prostatic portion sensitive. The sound deviates slightly to the left when it travels from it to the bladder; a creamy substance, consisting of pus, passes after each operation of the bowels. The introduction of the sound into the bladder causes pain; it is possible to explore its various faces without cocaine. Back of the neck, the sound meets a column. The region of the trigone is painful; no tumor, and no stones are detected. Two small calculi, the size of a wheat grain, were passed. The capacity of the bladder is found to be 6 ounces; no contractility. By rectal examination, the left lobe of the prostate is found enlarged, indurated, and its surface irregular; the right seminal vesical is normal, the left cannot be reached, and as there has not been epididymitis on that side, I am inclined to believe it is normal. The trigone is indurated. The testicles are normal, except the epididymes, which are very sensitive.

The abdominal muscles being very relaxed, palpation and bimanual examination can be easily made. In the right inguinal region a large gland, over 3 inches long and 2 inches wide, very hard, and movable, elevates the abdominal wall over 2 inches; by deep palpation under Poupart's ligament and against the obturator vessels, and extending downwards towards the sacrum, a similar gland is found. On the opposite side, and adherent to the posterior part of the horizontal ramus of the pubis, an internal iliac gland, very large, simulating an osteosarcoma, occupies nearly the anterior inferior half of the pelvis. No other glands than the internal and external iliac are enlarged. The sacral and lumbar glands appear normal, and in the axilla and neck, they are also normal. The kidneys, spleen, liver, lungs and pleura are normal. The nervous centres are normal; pain and numbness being due to compression of the nerves. In the heart we have a systolic aortic murmur, probably due to atheroma. Temperature normal. Digestive organs normal; constipation occasionally. The upper portion of the chest is covered symmetrically with pityriasis versicolor; now and then night sweats. The man's weight is 148 lbs.

Before proceeding any further, it will be proper, I think, to have clearly in our mind that the lymphatic vessels of the prostate are very numerous and form four plexuses; two lateral terminating in a gland situated in the inferior and lateral parts of the pelvis, and two superior terminating in a gland situated behind the horizontal branch of the pubis. Knowing this: What is the etiology of the enlarged iliac glands in the present case? Is it due to the rupture of an atheromatous focus? Is the enlargement secondary to a periprostatitis producing septic matter which being reäbsorbed would give rise to a lymphangitis and subsequent infection of the glands? Is the traumatism produced by the retention of urine sufficient to awaken a scrofulous dyscrasia under which this patient would labor?' The glands encountered in scrofulous subjects are precisely the kind we have in this case, and according to Ranvier, in these subjects advanced in age, the fibrous transformation in inguinal glands is very common. Have we to deal with tuberculosis starting at the prostate? The patient complains now and then of night sweats, and he had been losing weight before he presented himself to the polyclinic. The following treatment was adopted:

The patient was ordered a soft rubber catheter, and was instructed how to clean it and keep it clean; he was given Fowler's solution, 5 drops 3 times a day, the dose to be increased 1 drop every day; he now takes 10 drops 3 times a day, and has taken it for the last two months without any signs of arsenical intoxication. The following general directions were given: A nutritious, but not stimulating diet, occupation without excitement, and exercise without fatigue. Under this treatment the patient has very much improved; the glands have greatly reduced; the pain has disappeared, the urethral discharge has considerably lessened and the numbness is limited to the toes.

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ELECTROTHERAPY.

By A. B. ARNOLD, M. D., San Francisco, Cal.

There prevails a skepticism among a considerable number of general practitioners in regard to the therapeutical powers of electricity. It is often insinuated that when the battery meets with success in the treatment of diseases, it is chiefly due to a moral effect. This is an unmerited disparagement of one of the most valuable acquisitions to our stock of remedies. A rational estimate of what can be achieved by electricity as a therapeutic agent, and the mass of evidence in favor of its curative qualities, should remove the discredit with which Charlatans have invested it in the eyes of the conscientious physician. From having been a toy, the battery has become the means of adding many an important contribution to our knowledge of the physiology of the nervo-muscular apparatus. In the hands of those who are familiar with its principles of action in health and disease, and who have a practical acquaintance with the methods of its employment, surprising and brilliant results are often obtained.

The earliest information we possess in reference to the use of electricity in the treatment of disease is recorded of the old Roman physicians, who submitted patients whilst in a bath to the shocks of electric eels. In the 18th century much use was made of the ordinary friction machine, but it led to no observations of scientific value. The great discovery of Galvani opened a new field for the employment of electricity in practice. Then came Oersted's discovery of the magneto-electric phenomena, and in 1830, Faraday's researches made us acquainted with the inductive currents that were soon utilized in the construction of apparatus for medical purposes. Marshall Hall and Duchenne are the two conspicuous names in the early studies of the physiological and therapeutical effects of the interrupted current. We are indebted to Remak's investigations in regard to unlooked for remedial properties of the galvanic current. Valuable contributions on the subject of electrotherapy have now accumulated from a number of eminent men, among whom may be mentioned, Brenner, Pflüger, Rosenthal, Benedict and Erb, in Germany; Golding Bird and De Watteville, in England; and the Americans, Neftel, Rockwell and Beard.

One of the great advantages of electrotherapy is the application of the current *in loco morbi.* This adaptability of electricity to act directly on the seat of the disease is of immense importance. The difficulty of explaining in what determined manner the current influences morbid conditions, differing as widely in their pathology as paralysis, neuralgia, spasm and tissue changes, is no greater than that of accounting for the peculiar therapeutical effects of many of our most reputed remedies. Increased functional activity of motor nerves and muscles is an evident effect of the current. This is usually called the exciting or stimulant action of electricity, and expresses an empirical fact. Of analogous character is the action of the faradic brush in anesthesia. The beneficial effect sometimes witnessed when the current is used as a counter irritant is explicable on the same principle by which other counter irritants are supposed to act. That the galvanic current exerts a modifying influence in conditions of morbid sensibility or muscular irritability is now fully acknowledged. It is highly probable that when neuralgia or spasm is relieved by the current, it is due to its anelectrotonic effect. Nutritive changes, which sometimes yield to galvanism, may be ascribed to a catalytic influence on the solids and fluids of tissues. It may be conceived that the current initiates a process which promotes the absorption of exudations, or brings about a healthy action of the histological elements that leads to restitution of normal texture. Gross lesions of the nerve centres, which are little amenable to internal medication, are certainly not beyond the reach of the current; at least it must be admitted that the brain and spinal cord are both affected by galvanism. It is a fair inference that improvement of symptoms dependent on disease of these organs, should follow the judicious use of this remedy, although there is but a slight chance of arresting destroying lesions by any known therapeutical measures.

What is usually called a dynamic effect may be attributed to the current in subduing nemerous functional disturbances, especially of the nervous system. Cerebral anemia and congestion that underly many cephalic symptoms, and those circulatory disturbances dependent on irregularity of arterial tension, offer an avenue to the therapeutical effects of galvanism by means of the system of vasomotor nerves. It is in this manner that galvanization of the cervical sympathetic is supposed to exert its influence. Electric stimulation of the skin can be made available for exciting remote parts. Vulpian observed the disappearance of a hemiplegia after faradization of certain areas of the skin. It has been found that galvanization of tender vertebræ is of service in paraplegia and locomotor ataxia. Finally the excellent effects of general faradization in nervous exhaustion are confirmed by many observers. There undoubtedly exists a much wider scope for the electric treatment than what has been mentioned, especially in the direction of electrolysis. Electrotherapy has comparitively been but recently introduced into practice, and the triumphs it has already achieved are an earnest of its possibilities. These expectations are, however, not based on theoretical considerations, although it is consonant to the scientific spirit to attain to a rational interpretation of obscure phenomena. But the efficacy of electrotherapy is entirely founded on experience, which is after all the true criterion of a remedial agent, which deserves this appellation. It has happened in the instance of electricity as in that of other remedies which were found useful in diseases different from the class in which they were employed. Local faradization was for a long time the only method of using electricity in medicine. The induction current is now found of service in other affections than paralysis.

Among the technical procedures of electric treatment, there are two methods of special importance. The unipolar method is now generally preferred to its rival, the so-called ''direction method.'' By the term ''unipolar method'' is understood the concentration of the galvanic current, or rather the localization of its greatest density at a particular spot. This is effected by either of the poles, according to choice. That electrode is called the ''active'' which is brought in contact with the part where the greatest density of the current is intended to be localized. It is therefore of a small size. The other electrode, called the ''indifferent,'' is applied to a remote part, usually the nape of the neck, the upper part of the sternum, or the knee-cap, and is of a larger size. Physiological experiment has demonstrated the fact, that the exciting or electrolytic effect of the active pole exceeds that of the indifferent pole. At that point and its immediate vicinity, where the current is compact, its action must certainly be of greater intensity than at the point where the conducting medium is large, and the current proportionately dispersed. Practically the effect of the indifferent electrode may be considered as merely subsidiary, not only because of its greater size, but also on account of its situation where the part is much less sensitive to the electric stimulation. Apart from the special advantage afforded by the unipolar method, it secures the certainty of directing the greatest current strength to the part which is intended to be excited, and this is always a matter of prime importance.

The method of indirect or reflex electrization as recommended by Erb, admits of the antiparalytic effect of the current to be used in cases where it cannot be made to reach the seat of the lesion. This difficulty is experienced in lesions of the nerve centres of the brain and spinal cord, and also in places where the interruption of the nerve path is not accessible to the immediate action of the current. In those paralytical affections of a functional character, where the source of obstruction cannot be accurately determined, or where the motor disturbance is of a dynamical nature, as in hysteria, the same method of reflex electrization is applicable. In cases where the interruption that causes paralysis cannot be removed by the usual modes of treatment, the reflex method of electrization appears to be the only way of making an attempt to free the nerve path from the obstruction. In a case of facial paralysis, where the interruption is in the fallopian canal, we cannot send the current directly to the seat of the lesion, but we may stimulate different branches of the trigeminus of the face and thus excite a reflex loop that connects with the facial nerve. Reflex action may in a like manner be obtained in infantile spinal paralysis. The lesion in this disease affects the ganglion cells of the anterior cornua of the cord and must also involve to the same extent the spinal reflex centres. Now the centripedal stimulation of the current acting upon the surface of the paralyzed part excites the healthy reflex loops above the level of the lesion, and by eventually overcoming the motor interruption below, may succeed in restoring the power of muscular contraction.

ELECTRICITY IN AMENORRHEA.

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The testimony of the many eminent and scientific men who are now using electricity successfully as a therapeutic agent, and devoting their talents and energies to still further develop and increase its field of usefulness, fully endorses the statement, that in electrical currents we possess a variety of effective agents applicable to the treatment, relief, and cure of many pathological conditions.

Doubtless the greatest obstacle in the way of the successful use of electricity in medicine, is the lack of a sound scientific comprehension of the subject. The skilful and scientific use of electrical currents, galvanic, faradic, and franklinic, requires a thorough mastery of electricity in its physical, physiological, and diagnostic, as well as its practical relations. While the general practitioner may be too busily occupied to make electrical applications, or may not possess complete and efficient apparatus and appliances; yet if he appreciates the value of electricity as a therapeutic agent, and has correct ideas regarding the indications for its use, he will realize that he is not justified in discouraging its employment in cases where it would be of undoubted benefit, or neglecting it in those which would yield to it more readily than to other agents of the materia medica. "Our mastery of disease is not so great, or our means of attacking it so ample, that we can afford to ignore a single measure that will help us in the fight."—(*Dana.*) The truth conveyed in these words is well illustrated by a comparison between the unsatisfactory methods of treatment usually employed for the relief of amenorrhea, and the rapidly successful and uniform results which follow the judicious and intelligent application of electricity.

Without entering into a discussion of the etiology and pathology, it is sufficient to say that amenorrhea is a symptom depending upon a variety of causes, both local and general. Whatever the cause may be, the remarks in this paper apply to the absence or scant appearance of the menstrual flow in those cases in which the uterus and ovaries are present and sufficiently developed to permit of menstruation; or, in other words, cases which are amenable to treatment.

General Treatment.—All of the bodily functions should be carefully regulated, and a nutritious and a digestible diet directed. Systematic exercise in the open air should be insisted upon in every case, and a daily morning sponge bath of tepid salt water given. It is better to avoid the use of the so-called emmenagogues altogether; indeed, with the exception of potassii permanganas, it is doubtful if they ever reach this symptom. The presence of anemia calls for the exhibition of iron; but "however much the general pallor and the lack of tone seem to call for iron, it is useless and sometimes worse than useless, to give it unless the tongue be clean, without irritability. If the tongue be red and irritable, bitters with bismuth are to be adhered to, until all intestinal irritability has passed away, of which the condition of the tongue is the best index; if the tongue is loaded with fur, bitters and acids are to be preferred, with a little sulphate of magnesia, or a vegetable pill at bed-time; or both, if necessary."—(*Fothergill.*) The gastro-intestinal canal having thus been put in a normal condition, the iron compounds can be properly assimilated. Ferrum redactum, ferrum dialysatum, ferri carbonas, and ferri et potassii tartras, are all easily assimilated. A combination which is of undoubted efficacy, and has given favorable results to the writer and others, is the following:

℞—Hydrargyri Chloridi Corrosivi, -	gr. iv.
Sodii Arseniatis, - - - -	gr. iiss,
Strychninæ Sulphatis, - - -	gr. ss.
Potassii Carbonatis Pura, - -	
Ferri Sulphatis Exsiccati, - -	aa ʒi.

M. et div. in pilulas, lx. Sig.—One pill three times daily, after meals.

Massage will be found of inestimable benefit in some subjects, while in all cases the tonic and reconstituent effects of general faradization, or static insulation, with or without indirect sparks, should be employed.

Local treatment.—In the case of young girls where it is often inadvisable to make a local examination, we have two methods of percutaneous electrical application, which promise rapid and successful results, viz: Spinal, and combined spinal and abdominal applications of the galvanic current. The spinal applications are made in the following manner: The patient, with the clothing well loosened, sits on a stool. Two sheet lead electrodes (3½x2½ in.) covered with a thick layer of absorbent cotton are used, the anode being held immovably in contact with the lumbar region, while with the cathode a stabile application of a minute's duration is made to the cervical and all parts of the dorsal regions successively. From 10 to 15 milliamperes should be used, preferably through a rheostat.[1] Care must be taken to reduce the current to zero each time before shifting the negative electrode. This application may be repeated every third day. In making the combined spinal and abdominal application, the patient lies on her back with the cotton covered anode (4½x6½) beneath the lumbar region, while the cathode (3½x4½), also covered with cotton, is applied to each ovarian region in turn. The current should be gradually increased from zero up to 15 or 30 milliamperes, and maintained at the maximum for about one minute, and then gradually reduced to zero, when the cathode is to be applied to the opposite side and the procedure repeated. By the use of two electrodes (2½x3½ in.), connected by means of a bifurcated rheophore to the negative binding post, the two sides may be galvanized simultaneously.

In cases of retarded development favorable results may be confidently looked for if we utilize the tonic and stimulant effects afforded by the continuous coil faradic apparatus. In order, however, to obtain positive or uniform results, attention to details is necessary. The cathode, a well insulated uterine sound, is introduced into the cavity of the uterus, and the anode (3½x4½ in.)

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[1] The instrument best adapted to this purpose is the graphite current controller, manufactured by the Electrical Supply Co., of this city. Its range of resistance will afford a current from a fraction of a milliampere to the full strength of the battery, without shock—an indispensable consideration in gynecological work.

placed upon the hypogastric region, for about five minutes, and for the same length of time upon the lumbar region. The combination of the primary with the first induction coil, which gives a current of moderate intensity and medium tension, should be used in these cases. The application may be repeated every third day. In cases where the mucous membrane requires stimulating, we may utilize the faradic current with the bipolar intrauterine electrode of Apostoli, applied directly to the mucous membrane; or the galvanic current with a metallic cathode in the uterus and the anode (4½x6½ in.) on the hypogastric region, for three or four minutes, 5 to 25 milliamperes. Many cases of scanty menstruation which accompany chronic metritis, chronic endometritis, and stenosis, are readily and speedily relieved by negative chemical galvano-cauterization, 20 to 80 milliamperes for three to five minutes, repeated every second or third day. In these cases the favorable results are due to the absorbent, electrolytic, and chemical properties of the cathode.

In the majority of cases that come under treatment, it is necessary to include the ovaries when making electrical applications. This is best accomplished by means of the cathode in the form of a cup-shaped electrode applied against the cervix uteri, or a ball electrode, ½ to 1 in. in diameter, applied as near as possible to the ovary through the vaginal wall, while the anode (4½x6½ in.) is placed over the corresponding ovarian region and then applied to the lumbar region. From 10 to 60 milliamperes, for about three minutes, every third day. This application relieves pain and nervous disturbances, and promotes the functional activity of the ovaries. Amenorrhea accompanying uterine fibroids is not a usual symptom; in such cases, however, higher intensities than those mentioned in this paper must be employed in order to obtain any marked electrolytic effect. Stubborn cases will be met with occasionally which, after resisting the faradic and galvanic currents, will yield to franklinic electricity.

Enough has been written to show that in all electro-therapeutical applications, care and study are as requisite to success as in the application of any agent of the materia medica; and that with electricity, as with other agents, it is not the remedy but the manner of using it that determines its effect. The sooner we realize that indiscriminate applications of electricity, without regard to kind, pole, and dose, are capable of doing serious injury, and that successful electro-therapeutics requires us to utilize this force, as we do other remedies—to meet certain definite indications, there is hope for progressive and scientific work. No physician who carefully treats his gynecological cases, will do without a complete electrical outfit, when he once realizes how markedly increased are his resources.

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PHYSICAL EDUCATION IN RELATION TO MENTAL DEVELOPMENT IN SCHOOL-LIFE.

Abstract of a paper read in the Section of Diseases of Children, at the annual meeting of the British Medical Association, July, 1800.

By Thomas More Madden, M. D., F. R. C. S. Ed.

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The respective claims of physical and mental training, and the evils arising from the neglect or abuse of either are obviously questions of the highest medical as well as social interest. This neglect now presents itself in two different aspects. On the one hand, the children of the poor in England are compulsorily subjected at an absurdly early age to a forcing and injurious system of mental cultivation. Whilst on the other hand, in the case of those of a better social position, the physical powers are not uncommonly overtrained, at the expense of the mental faculties. Of these errors, the former is the most important, and to its operation is, I believe, largely ascribable the apparent diminution of physical stamina observable in too many of the youth of the present day as compared with the physically more robust, if intellectually less cultured generation of the preëducational period. Looking at the overtasked and anemic little children now chained to the desk by the School Boards, we might be tempted to believe

> "'Twas not the sires of such as these
> Who dared the elements and pathless seas;
> But beings of another mould—
> Rough, hardy, vigorous, manly, bold!"

At the present time, a large part of the first ten years of life, which should be primarily devoted to physical and moral training, is given up to the development of the mental powers; the child, when a mere infant, being compelled to attend some school, where the immature brain is forced into abnormal and disastrous activity. On its return home, jaded in mind and body, to prepare for next day's task, such a child is necessarily unfit for the enjoyment of the physical exercise which is essential for its bodily development and health, or for the still more important elementary training of the affections and moral faculties and instilment of religious principles, which are better acquirable from home teachings than from any school board system. We are all of course agreed as to the duty of properly educating children so as to fit them mentally and bodily for the increasing requirements and competition of modern life. But as to the extent to which the former should be carried and the latter neglected in early childhood, there is unfortunately a great discrepancy between the rulers of the education department and the views of those who have to deal in disease with the consequences of the violation of the laws of nature. And hence, whilst little children are thereby overworked into disease or death, the physician must still raise his protesting voice, albeit it would apparently seem unheeded.

During the first eight or ten years of child-life, the amount of mental cultivation which a child's brain is capable of receiving with permanent advantage is much less than is commonly believed. No greater physiological mistake is possible than that of attempting any considerable degree of such culture until the sufficient development of the physical stamina and moral faculties is accomplished. The organ of the mind is as much a part of the body as the hand, and ere either can function properly, its vital force must be fostered and maintained by nutrition and developed by physical exercise. A large proportion of those who come within the provisions of the elementary education code are semi-starved children of the poorest class who, when thus debilitated by privation, are necessarily as much incapacitated for any mental strain as for the accomplishment of any herculean feat of physical strength; it being not less inhuman, injudicious, and impolitic to expect the former than it would be the latter from those so circumstanced.

If the State, for reasons of public policy, determines that all children shall be compulsorily educated from their earliest years, it should certainly afford the means by which this may be least injuriously and most effectually carried out, by providing food and physical training as well as mental education for every pauper child attending an elementary school. Amongst the results of overpressure in such schools under the Boards referred to, are brain diseases in all forms—viz: cephalitis, cerebritis, and meningitis, as well as headache, sleeplessness, neuroses of every kind, and other evidences of cerebro-nervous disorders. On no other ground can the increasing prevalence of these affections amongst the little victims of the educational department be accounted for or explained, than by ascribing them to the new factors "brain excitement" and "over-pressure," which in the case of young children are now too commonly disastrously associated with the process of mis-directed education and neglected physical training.

In connection with the physical training of childhood, I may add a few words on the abuse of alcoholic stimulants. The evils resulting from the abuse of alcohol were never so prevalent as at present, and are traceable in the diseases of youth as well as in those of adult existence. The results of this acquired or inherited alcoholism are brought under clinical observation in the form of cerebral, gastric and hepatic disorders, and especially cirrhosis of the liver, as well as the protean forms of cerebro-spinal disease, and the various neuroses so frequently noticed in hospitals for children, and to which I have elsewhere directed attention. In the majority of these cases of juvenile alcoholism that have come under my care in the Children's Hospital, Dublin, this tendency appears inherited and most marked in those whose mothers are inebriates—intemperance in women also bearing in other ways on the diseases treated in hospitals for children, where its effects are strikingly evinced by the moral and physical deterioration of the offspring of the drunken and by their special predisposition to strumous, tubercular, and other constitutional taints. Under no circumstances should alcoholic stimulants be given to children, save in the guise and defined doses of other remedial agents—my experience in hospital and private practice, at home and abroad, having amply confirmed the view expressed in a work of mine published many years since, viz., that it is physiologically wrong, as well as morally unjustifiable, ever to allow a healthy child to taste alcohol in any form.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal. and

HENRY GIBBONS, JR., M. D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Early Maternity.—DR. T. B. NICHOLS writes to the *Medical Record*, that in 1855 he attended a French Canadian in childbirth. The labor was normal and of short duration; the child weighed six pounds, and was healthy in every respect; its mother was not yet thirteen years of age. Among that class of people in those days early maternity was not an uncommon occurrence.

Epilepsy Caused by Imperforate Hymen.—DR. L. N. ASHER SOMERS reports the case of a girl twenty years of age, who had suffered the falling sickness for about three years. No hereditary tendencies in that direction existed. A year before the epileptic attacks the patient began to complain of dyspepsia, backache, sickness, constipation, flushings abdominal pains, swelling, etc., for which she was given tonics, iron and liberal diet, making matters worse, and was thereafter variously treated by different physicians. The abdominal swelling finally gave rise to suspicions of pregnancy, and an examination being made a fluctuating tumor at the vulva was discovered. The distended hymen was now freely incised and a thick sanious fluid evacuated. Fourteen months after the operation there had been no return of the fits.—*Lancet*, May 10, 1890.

Early Diagnosis of Tubal Pregnancy.—So many cases of death by hemorrhage from rupture of the sac in extrauterine pregnancy have been reported, that it is of the utmost importance to be able to make an early diagnosis in order that laparotomy may be performed and a fatal issue averted. MR. JOHN W. TAYLOR finds the three signs of greatest service in forming a diagnosis at an early period to be the following: (1) Amenorrhea, followed, after six or seven weeks, by irregular hemorrhage. (2) Absence of any uterine enlargement. (3) Tubal tumor usually felt directly behind the uterus.—*Medical Press*, May 7, 1890.

To these may be added the extrusion of the decidua, should that have occurred; and the peculiar softness of the pregnant tubal sac which is not found in any other variety of tubal tumor, as pointed out by Veit, and fully concurred in by DR. GEO. T. HARRISON.—*Med. Record*, June 14, 1890. [Nevertheless, the diagnosis is always attended with great difficulty, and in a large proportion of cases, according to Lawson Tait, cannot be made with certainty.—H. G. Jr.]

Superfetation—Uterine and Extrauterine Pregnancy.—An interesting case of this character is recorded by DR. E. WILLIS WAY. The patient noticed a swelling in the median line and believed herself pregnant. Twelve months later the swelling reached a point two inches above the umbilicus, and inclined to the right side. Menstruation had been absent for the first eight months. Repeated examinations finally induced a hemorrhage, to stop which Hegar's dilators and Barnes' bags were used. Ultimately a four months' fetus was expelled *per vaginam*. Owing to septic complications, the patient died a week later. On *post-mortem* examination, a sac in connection with the right ovarian tube was found. In it was a softened and somewhat macerated fetus twelve inches long.—*Australasian Medical Gazette*, April 15, 1890.

Atresia Vaginalis—Parturition.—DR. J. J. E. MAHER reports the case of a woman, aged thirty, who having had some operation for false pregnancy a year before, became pregnant again and was found to have almost complete closure of the vagina at its upper portion. A small probe only could be passed. The stricture was dilated with laminaria tents so that in a week the finger could reach the cervix. Labor coming on, Barnes' bags were used to further dilate the stricture; but eventually, cervical dilatation being slow, forceps were applied and the child delivered. The mother recovered.—*Medical Record*, May 17, 1890. [In a similar case reported in New York, two or three years since, investigation had determined the necessity of dilatation, which was about to be performed when the patient fell in labor and to the surprise of all concerned, the stricture relaxed and permitted labor to be terminated without interference.—H. G. Jr.]

Adherent Placenta.—COHNSTEIN says it is difficult to determine the frequency of adherent placenta because it is so often confounded with mere retention. The manual separation of the adherent placenta, especially in private practice, is a grave operation—surpassing in mortality both version and forceps delivery; the death rate being 7.1:100, 5.3:100 and .7:100 respectively. The more accessible the physician the more frequent the operation. "Adherent placenta" is more frequently observed in private practice and in the polyclinic than in well conducted clinics generally. In the polyclinic 3. to 5.2:100 and in the "clinic" only .35 to .58:100. The diagnosis cannot be established before birth of the child. Adherence, however, may be suspected if it has occurred before, and endometritis is present. Pain and hemorrhage during pregnancy are altogether untrustworthy signs. The most frequent cause of adherence is chronic endometritis. To correct this at the proper time is to obviate not only adherent placenta but also abortion, placenta previa and other abnormities.—*Archiv. f. Gynaekol.*, xxxvi. 3.

Asepsis in Laparotomy.—REIN adopts asepsis instead of antisepsis. The use of chemical disinfectants should be restricted to the hands of the operator and the abdominal surface of the patient. The operation room should be disinfected by washing with a stream of water, the instruments by either dry or moist heat. The sponges he merely washes in plain water twice boiled. Of 60 laparotomies (of which 38 were ovariotomies and 5 laparotomies) performed under these precautions, only one proved fatal—removal of cystosarcoma with rupture of the intestine and consequent fecal peritonitis. Secondary laparotomy was performed twice. In the 57 recoveries the temperature reached 37.6° in 26, 38° in 36, exceeded 38° in 11, but in none did it reach 40° C. The dressings and instruments were various and were subjected to bacteriological examination with satisfactory result.—*Centralblatt f. Gynaekol.*, xiv, 9, 1890. [Dr. Rein and Mr. Tait employ antiseptics to establish "asepsis;" Mr. Lister to establish "antisepsis." Why need the medical world be wearied by this distinction without a difference? Mr. Lister made possible modern surgery and Mr. Tait. Mankind has reason to be thankful at least for the former.—W. A. B.]

Eclampsia Gravidatum.—HALBERTSMA has done Cæsarean section in three cases of eclampsia. In the first case (1878) the child was saved but the mother succumbed to peritonitis; in the second (1888), both mother and child were saved, and six weeks after the operation the former was discharged cured; in the third the author was unable to control the convulsion with either morphine hypodermically, or chloroform narcosis, and proceeding to Cæsarian section he rescued both mother and child. In view of the unfavorable prognosis of eclampsia treated by the usual means, he feels justified in recommending the method under consideration.—*Nederl. Weekbl.—Schmidt's Jahrbeucher*, Bd. 226, Hft. 5.

Self-infection.—VON SZABO defends the view that the organism itself destroys the microbes ordinarily present in the genital canal, and that hence the healthy lying-in woman is to be regarded as aseptic. The practical inference is that sterilization of the parturient canal is at least superogatory, if not positively injurious. The steady diminution of puerperal morbidity since the introduction of antisepsis, the grouping of puerperal diseases and the direct variation of their frequency with the number of examiners all discredit the assumption of self-infection. Clinical observation of lying-in patients bears in the same direction. Fever in child-bed more frequently follows injuries of the perineum and vaginal orifice than those of the cervix. If fever depended on the micro-organisms normally present in the vagina, this difference should not exist. Contamination of wounds of the external genitals occurs more frequently in child-bed from pyogenic bacteria that so easily accumulate in clinics, than in labor from microbes introduced by efforts to protect the perineum. That infection is so often observed with retained membranes, von Szabo explains not by migration of pathogenic microbes by means of the pendent membranes, but by imbibition by the uterus of pyogenic material from the vagina during the negative pressure of relaxation following contraction. Manual removal of retained membranes is to be counseled, for it puts the lying-in woman in a more favorable condition than if their removal be left to nature. Street labors and precipitate labors generally are not more exempt from febrile sequelæ than labors in which repeated examinations have been made, presumably because unfavorable surroundings promote infection from without. Notwithstanding the temporary suspension of vaginal examination during unfavorable hygienic conditions, the morbidity still remains higher than normal—accumulation of septic material in the clinic facilitates infection in child-bed, as well as in support of the perineum. Von Szabo asserts also that puerperal morbidity is not diminished by vaginal irrigation before labor. The essential thing in obviating infection is "subjective disinfection," and this is best accomplished with sublimate solutions.—*Archiv. f. Gynaekol.—Schmidt's Jahrbuecher*, No. 5, 1890.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal.,

J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal., and

G. F. SHIELS, M. D., C. M., F. R. C. S. E., Surgeon Polyclinic, San Francisco, Cal.

Laceration of Flexor Tendons of Arm—Tendon Suture.—DR. H. H. A. BEACH reports the following case: Two days before admission to the Massachusetts General Hospital, the patient cut his wrist by striking the broken edge of a window pane. A physician had closed the wound with sutures. Examination of the hand showed that power of flexion was lost. The wound extended two inches across the wrist, just above the joint, and was distended with clot. The sutures were removed, the clot washed away, and the whole area made aseptic. The radial artery, median nerve and all tendons of the wrist were found divided to the radial side of the flexor carpi radialis tendon, exposing the anterior surface of the pronator quadratus muscle at the bottom of the wound. The artery was tied and the corresponding ends of the nerve carefully united with a suture. The proximal ends of the divided tendons had become so much retracted that it was necessary to extend the wound by a longitudinal incision in order to find them. They were united by fine silk sutures, an antiseptic dressing was applied and drainage provided, the arm and hand put on a splint, the hand being slightly flexed. The wound healed in three weeks with no pain in flexion or sensation. At the end of a year there was restoration of sensation in hand and fingers, with excellent motion in the latter.

What Produces and what Prevents Ankylosis of Joints.—DR. A. M. PHELPS has performed a series of experiments with the view of determining the question whether prolonged fixation of a joint would result in ankylosis. Four dogs were selected and one limb of each was immobilized. The first dog was killed at the end of six weeks and the knee and ankle joints found perfectly normal in every respect. Upon opening the hip joint, however, the normal amount of synovial fluid escaping, a dark congested spot was found on the head of the bone, which corresponded to a similar one in the acetabulum, marking the points of contact between the head and the socket. There was also a dusky appearance of the entire head of the bone and of the ligamentum teres, closely resembling the congestive stage of inflammation. The synovial membrane was normal. A section being made of the head of the femur, the cancellated structure was found to be deeply congested, far into the head of the bone. The muscles of the leg were considerably atrophied. Dog No. 2, with foreleg immobilized, was killed at the end of three months and a half. Every joint presented a perfectly normal appearance. There was more atrophy of muscles than in No. 1, as compared with the opposite limb. Dogs 3 and 4 were killed at the end of the fifth month, lacking one week. The joints were all normal. A section of bones was made but their structure presented no abnormity. In all of the joints the normal amount of synovial fluid was present and was of proper consistence. After removal of dressings free motion of the joint was apparent, it being restricted only by the contracted muscles. Dr. Phelps draws the following conclusions: (1) That a normal joint will not become ankylosed by simply immobilizing it for five months. (2) That motion is not necessary to preserve the normal histological character of a joint. (3) That when a healthy joint becomes ankylosed or its normal histological character changed, it is not due to prolonged rest, but to pathological causes. (4) That immobilizing a joint in such a manner as to produce and continue intra-articular pressure, will result in destruction of the head of the bone and the socket against which it presses, as is evidenced by the case of Dog No. 1. (5) That atrophy of the muscles of the limb will follow prolonged immobilization of a joint. He holds that motion in the treatment of inflamed joints does not prevent ankylosis, and that prolonged rest of joints will not cause it. He says: "The question of ankylosis is determined by the severity, character and duration of the inflammation, the presence of intra-articular pressure, the subsequent cicatricial contraction of soft parts around the joints, the tissues involved and the amount of destruction of bone and cartilage.

Apparatus for Administration of Chloroform in Operating for Cleft Palate.—In referring to Bilroth's operation for cleft palate, DR. F. SALZER describes a very useful and simple apparatus by which the anesthetic (chloroform 10 parts, alcohol 3 parts and ether 3 parts), may be blown directly into the pharnyx. It consists of a metal tube bent at an acute angle, so that one side of the angle may be introduced through the nose or mouth, while the other side, to which a rubber bellows is attached, lies along the side of the cheek, and keeps the hands of the anesthetist out of the field of operation.—*Centralblatt f. Chirurgie*, March 29, 1890.

Inflammation of Bone Occurring in Mother of Pearl Workers.—DR. LEVY mentions a curious form of inflammation of bone which occurs in those who work on mother of pearl, and which, after reaching a certain point, resolves, leaving complete recovery. Five cases are reported which occurred in Berlin during the last four years; in these the bones chiefly affected were the jaws and clavicle. Dr. Levy thinks the condition due to the absorption of the dust and mud produced by the sawing and polishing of the shells, which contain a certain amount of organic matter.—*Centralblatt f. Chirurgie*, March 29, 1890.

A Simple Means of Testing the Adaptation of Sutures in Operations on the Stomach and the Pylorus.—DR. MEINHARD SCHMIDT, of Cuxhaven, describes the following process: After the stitches are applied, air is pumped into the stomach through a tube until it is distended, when the air will be seen to escape if the adaptation be insufficient. After the test has been made the air is allowed to escape through the tube. The observation may be rendered more certain if the viscus be compressed while distended, when the slightest insufficiency will be noticed. Dr. Schmidt thinks the methods should be generally employed, as it takes very little time and can do no harm.—*Centralblatt f. Chirurgie*, April 5, 1890.

Treatment of Tetanus by Subcutaneous Injection of Carbolic Acid.—DR. BACCELI has cured two cases, and at the time of his report had a third which was doing very well. He injects 1 cg. and repeats it every two hours.—*Riforma Medica*, January 25, 1890.

Cure of Spinal Bifida.—DR. HURD reports a cure of this condition by complete excision of the sac down to the level of the canal and suturing of the wound. The patient was seven months of age.—*Centralblatt f. Chirurgie*, April 19, 1890.

New Method of Retaining a Catheter.—DR. EMIL PILZ describes an excellent means of fixing in a catheter. When the instrument is in place a one inch square piece of ordinary diachalon plaster with a hole in its centre and a slit connecting this to one border of the square is slipped round the catheter and fastened to the glans penis. A short insect pin is now made to transfix the instrument as close to the meatus as possible so that it rests on the plaster. The sharp point of the pin having been snipped off, a second piece of plaster, twice the length of the organ and of sufficient breadth, is taken, and a small slit made in its middle to allow of the passage of the instrument. This is slipped down over the end of the catheter until flush with the pin, the two sides being carried along the penis and fastened to it. In order to make this thoroughly secure, it is bound down by a third piece of plaster, which is wound round the organ. The rationale is as follows: The cross pin prevents the instrument sinking further into the bladder, the meatus being protected by the first piece of plaster; the second piece of plaster being flush with the cross pin and firmly adherent to the organ, prevents the instrument slipping out.—*Centralblatt f. Chirurgie*, April 19, 1890.

Two Uncommon Surgical Cases.—The following cases are reported by DR. J. B. FIELD, in the *Boston Medical and Surgical Journal*, April 24, 1890. (1) *Dislocation of Penis and Testicles:* A switchman fell backwards, several cars passing over his right thigh from inside outwards. Examination revealed a large wound communicating with a badly comminuted fracture of femur just below trochanters. Shortly before death, which occurred in half an hour, he complained of a desire to urinate, but when the attending physician attempted to catheterize the patient, he could not find the penis. After death, an examination showed that only the coverings of the testicles and penis were present. Palpation over the lower part of abdomen disclosed, just above Poupart's ligament on each side, the presence of a body the size of a testicle, and slipping away from under the fingers. By bimanual manipulation with two fingers in the wound in the thigh, and the other hand on the abdomen, the testicles were at last brought out. A finger was then invaginated in the skin of the penis, and at length hooked around the glans, which was drawn forward, restoring the penis to its natural position. It seemed as if the penis had been bent upward and backward under the integument of the pubic region. (2) *Fracture of Coracoid Process.* A boy, five years old, fell, striking partly upon the sidewalk and partly upon a boy's cart, behind which he was running. He complained of pain upon flexing or extending the forearm and upon raising the upper arm, and tenderness upon pressure over the outer part of the clavicle. Diagnosis: Fracture of clavicle. Upon removing clothing, both clavicles seemed alike in shape and position. There was no tenderness over the clavicle, but just below the outer third there was a small prominence of bone, tender and movable. No crepitus was elicited. The diagnosis was changed to fracture of coracoid process. The upper arm was confined to the side, the forearm flexed, and a pad strapped over the process. Good motion was obtained, but the bony prominence still persists.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

Translumination of the Larynx and of the Antrum of Highmore.—DR. W. FREUDENTHAL illustrated the method of diagnosis of laryngeal and antrum disease with the electric lamp, at a meeting of the New York Academy of Medicine. To illuminate the larynx, he places the lamp on the external surface of the neck, either at the pomum Adami or near the cricoid cartilage, and introduces the heated mirror into the dark pharynx. This view presents quite a different appearance from the ordinary method, showing the whole larynx to be of a reddish tint of varying intensity. When the lamp is at the level of the incisura thyroidea, the vocal bands, and all the parts about them, appear of a beautiful red color (of course, the epiglottis is dark). When the lamp is held near the cricoid cartilage, it gives a better view of the whole subglottic region down to the bifurcation of the trachea; and this is often more satisfactory than the common method. By this examination we are enabled to define more precisely the contour of a tumor, because we see how the mass differentiates itself sharply by its dark outline from the other parts in view. It also enables us to differentiate between a solid tumor and a cyst. To examine the antrum of Highmore, the patient takes the lamp in his mouth; then, looking through the nasal speculum, we see the nasal cavity illuminated. To get a view of this cavity it is necessary that its floor is permeable to light. If, however, it should remain dark, we conclude that in the antrum there must be a body impermeable to light, most generally pus, or a solid tumor. Should the cavity contain a cyst filled with serous fluid which, like Voltolini's case, had enlarged the cavity and thinned the walls, we would be able to see so much better. It may seem strange that translumination of the nose depends so much, as it certainly does, upon the condition of the antrum. The non-appearance of light in the affected side is such an important symptom, that by it we can make the diagnosis of empyema of the antrum. The following points should be observed in using this method: (1) For the exploration of the antrum an absolutely dark room is necessary; for that of the larynx it is not. (2) Never work without a rheostat, if you don't want to break many lamps. (3) Never forget to have the patient remove his tooth-plate when one is present.—*Medical Record*, May 17, 1890.

The Treatment of Lachrymal Fistula.—DR. VENNEMAN says that he has treated lachrymal fistulas with lactic acid during the past five years, with perfect success, whether the fistula were recent or of long standing. A small tampon impregnated with the acid should be introduced into the cutaneous opening and pushed as far into the fistula as possible. A hard crust soon forms about the opening through the skin, and the fistula becomes cicatrized.—*Progrès Medical*, May 10, 1890.

Ocular Symptoms Due to Diseases of the Nasal Cavities.—In a paper presented to the Medical Congress of Australia (1889), DR. T. K. HAMILTON tabulates some nasal troubles causing ocular disturbances, as follows: (1) Empyema of the antrum and hypertrophic rhinitis of left side, concentric contraction of the visual field for colors, accommodative asthenopia, retinal hyperesthesia, peculiar sensations of light, photophobia with blepharospasm and infraorbital neuralgia. The evacuation of the empyema, and its cure, was followed by recovery from the eye symptoms. (2) Ecchondrosis of the triangular cartilage and chronic rhinitis, with asthenopia, pain in the eyeball, injection of the eyes when used for close work, blepharospasm, contraction of the visual fields. All eye symptoms disappeared on removal of the growth. (3) Spine of the bony septum, causing chorea magna, asthenopia, subjective color sensations, sneezing, contraction of field of vision. All cured by removal of spine. (4) Advanced chronic atrophic rhinitis, with middle turbinated, hyperplasia, causing asthenopia, lachrymation, puffiness of lower lid, contraction of visual field. All relieved by treatment of the nose. (5) Syphilitic ozena, asthenopia, lachrymation, pericorneal injection on using the eyes, contraction of fields of vision (temporarily relieved by amyl nitrite). Eye symptoms improved as nose improved. (6) Polypi, nasal and naso-pharyngeal, with eye symptoms similar to those recorded. (7) Post-nasal growths. Of 106 cases, eye symptoms coëxisted in 51; in 22, catarrhal conjunctivitis; in 7, follicular conjunctivitis; in 16, granular conjunctivitis; in 6, blepharitis.—*Journal of Laryngology*, June, 1890.

Removal of a Piece of Steel from the Eye After Many Years—Retention of Good Vision.—A man 55 years old, laborer in steel works, was seen in 1889. Between 18 and 20 years previously, while hammering a steel hoop, was struck in the eye by a splinter of steel. There was severe pain, which caused him to leave his work and make applications of cold water at home. The pain soon subsided, and he returned to work. For the fourteen years following, the eye continued free from pain and irritability, with unimpaired vision. Three years ago, however, the eye became red and painful, and vision was diminished in acuteness. During the past year these symptoms were present more frequently, and especially after free indulgence in liquor. The right eye had not suffered in any way. Examination showed a moderate degree of conjunctivitis, and pericorneal injection and photophobia. In the centre of the upper quadrant of the cornea, focal illumination showed a fine thread-like cicatrix, while the cornea was otherwise clear. The anterior chamber was of normal depth, but the aqueous humor was cloudy. The medium-sized pupil was regular, but reacted slowly and little to light. The iris tissue was swollen and discolored. In the upper part of the iris, near the pupillary border, a dark prominence, about as large as a pin's head, could be seen. A small, yellowish-white color was also seen in this portion of the iris. The media were so cloudy that a clear view of the fundus could not be obtained. The eye was not tender to touch; tension, normal; vision, 0.2; right eye normal. Iridectomy was made upwards with a small knife. The portion of iris containing the foreign body presented in the incision, was caught and excised, leaving a regular coloboma. Clear, white fluid was found between iris and lens. There was free hemorrhage into the anterior chamber, and a compress bandage was applied. The healing progressed favorably, without inflammation or irritation. A small opacity of the anterior lens capsule continued unchanged, otherwise the media were clear. The vision, when the patient was last seen, three weeks after operation, was 0.6 with cylindrical glasses. The metal, about as large as a poppy seed, was imbedded in the excised iris tissue.—*Klinische Monatsblätter f. Augenheilk.*, May, 1890.

Deafness Treated by Pilocarpine.—A boy, æt. 13, who had always heard imperfectly, was treated when 5 years old, at which time he could hear the watch 3 inches from each ear. In January of the present year, after an attack of measles, hearing of watch was reduced to 1½ inches. After 21 daily injections of pilocarpine, the watch was heard at 48 inches, which a month later was found to be even better—50 inches for each ear. At first the dose was $\frac{1}{12}$ of a grain, which was increased to $\frac{1}{6}$, and later to $\frac{1}{5}$.—*British Medical Journal*, June 7, 1890.

Paralysis of the Left External Rectus Muscle.—DR. FEILCHENFELD reports a case which was seen in Dr. Schneller's practice. A 16-year old boy had received a slight wound, which caused him to faint. In falling he struck the back of his head against an open door. There were no spasms, but when he recovered consciousness, at the end of half an hour, he saw double. Examination showed paralysis of the left abducens; vision normal in each eye. No appearance of injury visible on the head. No other pathological condition could be found. Electricity and iodide of potash were used, and one month later the paralysis had subsided.—*Klinische Monatsblätter f. Augenheilk.*, May, 1890.

Artificial Maturation of Immature Senile Cataracts by Trituration.—MR. M. MCHARDY says that after five years experience of artificial ripening of immature senile cataracts, practised with increasing frequency and confidence, he is convinced of the truth of the following proposition: That complete ripening of immature senile cataracts may be safely and almost certainly secured in from eight days to eight weeks by preliminary iridectomy, with trituration of the lens through the cornea and pupil, done with experience, judgment, and care; that the ultimate results (surgical and visual) of extraction operations in such cases are quite equal to the results of similar operations for senile cataracts which have been allowed to mature spontaneously; and further, that the removal of such artificially-matured cataracts is entirely free from those risks, drawbacks, and often impaired ultimate results which follow removal of immature senile cataracts. By memoranda from his first twenty-five and last hundred cases, he furnishes details regarding his experience, and emphasized thereby how its safety and success grew with the operator's practice.—*Ophthalmic Review*, June, 1890.

The Surgical Treatment of Fixed Membranous Opacities in the Vitreous.—DR. C. S. BULL says that, in a majority of cases, fixed membranous opacities of the vitreous are adherent at two or more points to some interior parts of the eyeball, such as the choroid, retina, optic disc, and sometimes indirectly to the ciliary processes, or, in case of perforating wound, to the posterior capsule of the lens. Experience has taught that internal medication has little effect upon them. He has not seen any favorable results from electricity, which some have claimed promoted their absorption. Opacities after minute hemorrhages or from circumscribed inflammatory processes in the choroid, naturally undergo absorption, especially in young people; but in some cases, fixed membraneous opacities, particularly in patients beyond middle life, resist all medication or local applications, and are proper cases for the knife of the ophthalmic surgeon. These opacities materially affect the visual acuity, even when they are mere diaphanous cobwebs, and besides, if dense, become dangerous to the functions of the eye from traction on the retina at their points of adhesion. By dividing them we not only improve vision, but may also incite an absorptive process in the eye, which may bring about a disappearance of the membrane, and, by thus reducing its tension, lessen the danger of retinal detachment. The facility and thoroughness with which the operation of laceration may be done, and the possibility of improvement of vision, depends largely upon the position of the membrane in the vitreous. If it is far back it is more easily reached by the knife or needle, and in the hands of a skilled operator there is little risk of doing any damage to the retina or optic disc and, of course, no risk of injuring the lens. If the membrane is situated in the anterior part of the vitreous close to the lens, the danger of wounding the latter is much increased. In regard to the improvement of vision, laceration of a membrane in the middle or posterior part of the vitreous always, or nearly always, promises improvement in in sight, provided no serious lesion of the fundus is present von Graefe's method of operation is carried out as follows: The eyeball is rotated strongly inward, a keratonyxis needle is then plunged through the sclera between the external and inferior recti muscles just in front of the equatorial region, parallel to the plane of the iris, and behind the lens, and the membrane is then divided in several places from before backwards. Dr. Bull has reported 29 operations in which there was notable improvement in vision in 25, and in the others no benefit resulted. In some of his cases the ordinary discision or keratonyxis needle was employed. In others a broader needle with double cutting edge; while in a few, where the membrane appeared tough and thick, a very slender cataract knife was used. The ophthalmoscopic mirror was used as a head mirror in some of the cases, but no special advantage was found to be gained by this method. His experience in 29 cases has led Dr. Bull to a favorable conclusion in regard to the value of the operation. If the field of vision is intact and projection good, and if the membranes in the vitreous are neither too dense nor too numerous, the operation almost always promises a fair amount of improvement in the vision, and sometimes very marked benefit. The eye should be free from all irritation before attempting surgical interference.—*Ophthalmic Review*, June, 1890.

SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

AND

DERMATOLOGY.

By D. W. MONTGOMERY, M. D., Professor of Pathology, University of California, San Francisco.

Piedra or Trichomycosis Nodosa.—As far back as we can trace in history, the obedience of the human race to the requirements of fashion has been, in the main, absolute; even when that obedience meant the endurance of the most filthy matters about the person. One has only to recall to mind the towering head dresses of the elegant age of Louis XIV, of France, which fairly swarmed with insects; or the polish for boots which was at one time the mode in England, the principal ingredient of which was eggs far advanced in decomposition. And we are told the most fashionable drawings rooms in London fairly reeked with the characteristic odor, simply because this particular polish was the fashion. The disease, a description of which follows, seems usually, if not always, to owe its inception and its permanence, to a nasty method of dressing the hair, which, fortunately for us, has now "gone out." This disease is not alone interesting because entertained by human frailty in the matter of fashion, but also as an example of what is meant by the doctrine that a suitable ground must be prepared before microbes will flourish, either in or on a human being. In 1867, Lindemann described a disease of the hair, which he said was owing to clusters of gregarinidæ forming hard masses at intervals on the hair shaft. As he found the affection on the heads of women wearing chignons, which were then in vogue, he called the hairs presenting this peculiar deformity, "chignon hairs." Two years afterwards Beigel, in his work on the human hair, described the same disease; but showed that it was not caused by a gregarina, but by a fungus, which he called the "chignon fungus," indicating by the name that the mode of dressing the hair determined the presence of the fungus. With the disappearance of the chignon, and the advent of more cleanly modes of dressing the hair, the disease seems to have decreased so in frequency as to remain unnoticed by European authors up to the present day. In 1876, Osorio, a South American physician, described a disease occurring in the province of Cauca, in Columbia, which he called "piedra" (Spanish for a stone), from the small, stone-like nodosities at intervals along the shaft of the hair. These nodules are sometimes so hard as to rattle when a bunch of hair is shaken. They almost always occur on the hair of the head, and in women. Osorio supposed the disease to be due to a circumscribed proliferation of the cells forming the cuticle of the hair, and would therefore class it among the hypertrophies. Afterwards, Desenne, of Paris, and Malcolm Morris, of London, investigated the minute anatomy of these nodules, and found them not to consist of epithelium, as asserted by Osorio, but of spores and mycelia, which grew around but not into the hair, and were, therefore, real epiphytes, forming a striking contrast to such fungi as the trichophyton (ringworm fungus), and the achorion (favus fungus), which grow into the substance of the hair. The connection of this disease with the "chignon fungus" described by Lindemann and Beigel does not seem to have occurred to them. Piedra was a disease supposed to be peculiar to the province of Cauca, in Columbia, and to exist nowhere else in the world. The subject lay here till taken up anew in 1888 by JUHEL-RÉNOY, who worked over fresh material received from Columbia, with the result of confirming the observations of Desenne and Malcolm Morris, that the nodes were formed from collections of spores and mycelial threads. He has given it the more scientific name of trichomycosis nodosa. GUSTAV BEHREND, of Berlin, happily met with a case of the disease occurring on the hairs of the mustache of a brother practitioner; and his investigations in this case, together with that of material kindly furnished him by Juhel-Rénoy, have appeared in the *Berliner klin. Wochenschrift*, May 29, 1890. By a carefully conducted series of cultivations on different media, he demonstrated the identity of the fungi in both cases; proving beyond doubt that the "chignon disease" and piedra are the same, and that piedra, far from being a disease limited to the province of Cauca, probably occurs in many different parts of the world, certainly in Russia, in Germany, and in London. One of the most interesting features the disease, is the study of the conditions under which it grows on the hair. In by far the majority of cases it does not seem to draw its nourishment from the shaft of the hair, but rather from some decaying substances in its neighborhood, such as rancid oil, etc. It seems merely to use the hair as a support on which to grow. During the days of the graceful "waterfall," it no doubt found abundant material in our blessed land; and its appearance in Cauca seems to be owing to a fashion there of dressing the women's hair with linseed oil. Its occurrence on the German doctor's mustache is so far inexplicable, but may be owing to some individual peculiarity not yet elucidated.

Aristol in Dermatology.—Is a reddish brown amorphous powder, formed by adding a solution of iodine in iodide of potash to an alkaline solution of thymol. It is a chemical combination of iodine and thymol—a di-iodine thymol iodide. Owing to the presence of these active therapeutic agents much was expected from the new drug, and the anticipations seemed at first to be fulfilled by the brilliant results reported by Eichhoff (*Monats. f. Prakt. Dermatol.*, Jan. 15, 1890) in the following diseases—varicose ulcer, parasitic eczema of the legs, ulcerating lupus of the face, psoriasis, ringworm of the scalp, ulcers of the legs, seborrhoic eczema, and hereditary syphilis (the ulcerating form). This induced Lasser (*Berlin. klin. Wochenschr.*, No. 11, 1890) to give it a more extensive trial in psoriasis and in lupus. He was able to effect a cure in some cases of psoriasis, and says that as a remedy for this disease it is certainly worthy of attention. He found it useless in lupus vulgaris, a disease for which Eichhoff particularly recommended it. Neisser, of Breslau then took up the study of the drug (*Berlin klin. Wochenschr.*, No. 19, 1890) and gave it a thorough investigation, both experimentally and practically. Administered internally it did not seem to have the slightest effect. Neither iodine nor any of its combinations were found in the urine. Aristol and starch were rubbed up together in a mortar and left standing for days in the sunlight without any blue color appearing to show the presence of free iodine. Aristol is soluble both in olive oil and liquid paraffin. Paraffin solutions soon show the existence of free iodine, and in the presence of light free iodine can also be detected in the oil solution. Ointments made with vaseline do not give the reaction for free iodine. Experiments to ascertain its antiseptic properties were made on several of the better known bacteria. The powder failed to kill, or even to arrest the growth of these microörganisms—the ethereal solution proved antiseptic, but its activity was in all probability owing to the ether and not to the aristol. Neisser tried its therapeutic effects on 12 cases of psoriasis. Two cases reacted slowly, but favorably; the other 10 showed no reaction whatever after from 2 to 3 weeks' treatment. It was found, however, that patches of the disease which had previously been treated with aristol healed much quicker under chrysarobin than

those on which no aristol had been used. He therefore looks upon it as a decided gain, for, apart from the disagreeableness of an energetic treatment with chrysarobin, an objection from which aristol is absolutely free, there are patients who do not bear either chrysarobin or pyrogallic acid. In 7 cases of soft chancre aristol powder and a solution of aristol in ether were found useless. It exerted no influence in gonococci. An eczema of the popliteal space was treated for a few days with aristol ointment and although the result was not very pronounced, yet it warranted further trials. Several varieties of ulcers, from tertiary syphilis, scrofula, and wounds after curetting of abscesses, buboes and lupus healed favorably under aristol. It had no curative effect whatever on lupus tubercles. A case of sebarrhoic eczema was treated with a 20 per cent. ointment without any improvement; it healed quickly under chrysarobin.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

Biborate of Soda in Epilepsy.—DR. RUSSELL and DR. TAYLOR record, in the *Lancet* of May 17, 1890, a series of cases of epilepsy treated by biborate of soda. The object of their paper is to emphasize the value of the drug, and, at the same time, to call attention to some of the ill effects that may result from its use. Folsom, in an article in the *Boston Medical and Surgical Journal* (1886), says that the effect of borax in cases where bromide was not tolerated, or was inefficient, was very satisfactory; and he quotes the details of two cases in which the bromide had to be discontinued and borax substituted for it. In one case, seventy-eight days were allowed to elapse before the new treatment was commenced, and it was continued for two years; during the last twelve months only two fits occurred, caused on each occasion by indigestion. The other patient had only two fits in eighteen months. In the present series of cases, the treatment commenced with 30 gr. in twenty-four hours, the amount being rapidly increased to 180 gr.; but it was found that nothing was gained by giving such large doses, as they produced gastro-intestinal disturbances, and so caused loss of time. Therefore, in the latter cases, the maximum dose was 30 gr., given three times daily after food. Though this drug undoubtedly posesses the power of controlling the frequency of fits in many cases, and oftentimes does so when bromide has failed or cannot be given in sufficiently large doses without producing great depression, yet its administration is attended with certain unpleasant symptoms. The most constant of these is an affection of the lips, which in its most typical and fully developed form results in swelling, chiefly of the lower lip, upon which small vesicles make their appearance, becoming larger by coalescence; the contents then become opaque and milky. Some of the vesicles burst, while others dry up; and the result is a scaly, chapped condition of the lips, resembling that commonly seen in cold weather. Other cases develop the chapped condition without the previous formation of vesicles. In addition to these, the drug is liable to cause psoriasis, which is very amenable to arsenic; or at other times an erythematous or papular eruption may occur.

Gurjun Oil as an Expectorant.—Gurjun balsam, or wood oil, is a balsamic exudation obtained from the trunk of dipterocarpus turbinatus and other species growing in the East Indies, by incision and the application of heat. It is a transparent liquid like olive oil, of an opaque, dingy, greenish-gray color, as seen by reflected light, and having an aromatic odor and taste not unlike that of copaiba, but without its acridity Some years ago it was brought into notice as a remedy for leprosy. In the present instance it was given by DR. MURRELL, for its expectorant qualities, in the treatment of bronchitis and winter cough. At first he prescribed it in doses of 1 or 2 drachms three times daily, in combination with liquor potassæ, spirit of nitrous ether, mucilage of acacia and cinnamon water; but this was not a very inviting preparation, as it had a tendency to "curale" and produce a rash during its elimination through the skin. After a time he gave it with extract of malt—2 dr. of the balsam to 1 oz. of the extract—three times a day, and this was taken without any difficulty. The chronic bronchitics reported that it acted admirably as an expectorant, "clearing the chest" and easing the cough. In several cases pilocarpine was given at bedtime, to produce sweating, but no eruptions resulted. Dr. Murrell concludes that gurjun oil has all the advantages of copaiba as an expectorant, without the grave disadvantage of exciting an eruption.—*Lancet*, May 3, 1890.

Ouabain in Whooping Cough.—Ouabain is an alkaloid, crystalline in character, derived from the roots of ouabaia, which is used as an arrow poison by the Somalis, in East Africa. Experiments on dogs showed that in lethal doses it stimulates and then slows respiration. DR. WILLIAM GEMMELL has made a partial report of a series of investigations regarding the administration of the drug in the treatment of whooping cough. When the treatment was first begun, very small doses were used until it was ascertained that the average dose for a child five years of age was $\frac{1}{1000}$ of a grain every three hours. Under this dose, if the case was one of moderate severity, the number of coughs and whoops usually rapidly diminished; but in two cases, where the children were much prostrated by the violence and frequency of the cough, this dose was found to be too small, so that $\frac{1}{500}$ gr., and finally $\frac{1}{250}$ gr., had to be given to them every three hours. The following are the more important conclusions arrived at by Dr. Gemmell: (1) Ouabain is of marked benefit during all stages of whooping cough, and, if carefully used, produces gratifying results. In the first stage it cuts short the attack; in the second it reduces the violence and frequency of the cough and diminishes the number of whoops; and in the third it hastens convalesence in a remarkable manner. (2) Ouabain should be given, at first, in doses not exceeding $\frac{1}{1000}$ gr. every three hours. The simplest way is to dissolve 1 gr. in distilled water, so that each minim of the solution shall be equal to $\frac{1}{1000}$ gr. ouabain; and this may be given in syrup, combined with chloral hydrate or bromide of potassium, if so desired. The drug is not cumulative. (3) Ouabain promotes the activity of the skin and kidneys. (4) Under the administration of Ouabain, it is found that the temperature, pulse, and respirations are, in uncomplicated cases, slightly below normal. When the drug is pushed the respiration, as might be expected, becomes very slow, indeed; in one patient, aged 4, it was often as low as sixteen per minute. It is from this side that danger is to be expected.—*British Medical Journal*, April 26, 1890.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

Treatment of Pulmonary Tuberculosis.—DR. H. BREHMER whose death has been mentioned by our German correspondent (p. 398) had unusual opportunities in treating more than 10,000 cases of pulmonary tuberculosis. He was the first to maintain the curability of the disease by bringing forward cases treated at his sanitarium at Goerbersdorf. The publication of these opinions being in opposition to current teaching, engendered controversy, and his last work is largely of a polemic character. Dr. Brehmer is an earnest advocate of treatment in a private institution, which should be situated in the mountains, a site favoring the heart's action through diminished atmospheric pressure, and improving nutrition by increased appetite. The site should also possess immunity from consumption. The institution must be protected from winds, which in the language of the writer, "is poison for consumptives." Patients are allowed unlimited exercise in the open air, but must upon the least fatigue seek rest until recuperated. The nutrition of the patient is of great importance. Anorexia is combatted by sojourning in high altitudes. He provides his patients with five meals daily, the object being to distribute the task of gastric digestion. Vegetables occupy a prominent place in the dietary, for in anorexia they are more palatable than animal food. Fatty food must also be consumed. Each patient drinks on an average 1½ litres of milk, which in cases of protracted anorexia is increased to four litres a day. He introduced wine in the treatment of pulmonary tuberculosis because it increases and strengthens the cardiac contractions and economizes nutrition. The use of cognac when continued for a length of time, conduces to unfavorable results. In the symptomatic treatment, the dry irritative cough is controlled by psychical influences, the drinking of cold water or by drinking hot milk with seltzer water. Morphine is indicated only when the cough is attended with expectoration and interferes with sleep. Inhalations are not considered. Moderate hemoptysis is controlled by injections of morphine, the ice bladder to the cardiac region and milk diet. Eventually ergotin is used. Sesquichloride of iron is mentioned as absolutely inert. When the hemoptysis is severe, energetic coughing is at times necessary in order to dislodge the accumulated blood in the bronchi, and thus avert suffocation. If this prove insufficient, the finger is introduced into the larynx and the coagula removed. When weakness supervenes with increasing dyspnea, champagne is administered as a stimulating expectorant. Fever is combatted by 1 to 2 wine glasses of Hungarian wine and an ice bladder to the cardiac region. If the fever persists, then antipyrin and antifebrin are employed. Night sweats are controlled by the ingestion of a glass of milk containing one or two teaspoonfuls of cognac.—*Die Therapie der Chronischan Lungenschwindsucht* von DR. BREHMER, 1889. [The book of Dr. Brehmer presents nothing that is absolutely new, and characterized by systematizing recognized methods of treatment. It is the judicious management of details alone, which produce the extraordinarily good results attained by him. In this connection I may mention a method of treatment which I deem of great value in persistent cases of anorexia: *i. e.*, *lavage of the stomach.* I have now tried it in four cases of persistent anorexia in phthisical patients, with results prompting a continuance of this procedure. No apparent dyspeptic symptoms were present in any of the cases. How the good results are achieved, I am unable to say, as no control experiments by analysis of the gastric contents were made.—A. A.]

Intestinal Antisepsis.—To render innocuous the pathogenic organisms of the intestines, attempts have been made with drugs administered by the mouth or rectum. By the first method only those remedies are indicated that will pass through the stomach unchanged. Calomel is an agent of this class, but while serviceable in simple fermentative conditions, it is impracticable in infection of long duration. BOUCHARD used large quantities (100 grammes daily) of pulverized carbon in typhoid fever; naphthalin, iodoform and salicylate of bismuth have also been recommended. These agents possess a certain antiseptic influence on the contents of the alimentary canal, but on the intestinal wall their action is *nil*, which fact receives confirmation in the treatment of typhoid fever. The intestinal antiseptics require heroic administration, and aside from toxicity, they are absorbed in the stomach and altered in their chemical constitntion before attaining the desired site. For this reason CANTANI considers their exhibition *per rectum* as the proper method. Repeated experimental investigations show that intestinal irrigations may pass the valve of Bauhin, and reach the upper part of the small intestines. The advantages arising from rectal injections are: the use of large doses, direct action and the avoidance of gastric irritation. There are also other advantages attending this method. The use of cold water reduces the temperature; whereas hot water is of benefit in cholera. Thorough lavage of the intestines is also attained and a certain quantity of bacteria and ptomaines are mechanically removed. Cantani considers carbolic acid and tannic acid to be the best intestinal antiseptics. Corrosive sublimate exerts no antiseptic action, owing to its union with albumin. Tannic acid fulfils a double indication for rational intestinal antisepsis; it paralyzes the vegetative activity of the bacteria and renders the ptomaines innocuous. The value of tannic acid in effecting the objects already mentioned has received abundant clinical proof in the treatment of intestinal catarrh accompanied with fermentation and true specific dysentery. If the injections of tannic acid prove too irritating, then the addition to the injection of about 1 litre of oil is of advantage. In typhoid fever these injections are of great value; meteorism and diarrhea disappear and the entire course of the disease is favorably influenced. In the incipiency of this disease, it is possible by injections of tannic acid, to abort it. Cantani has also secured an abortive action in the beginning of typhoid with injections containing 1 gramme of the hydrochlorate of quinine, and from 10 to 50 grammes of pure carbolic acid in two litres of cold water.—*Wiener medizin. Presse*, May 25, 1890.

Vegetarian Diet.—DUJARDIN-BEAUMETZ claims that this diet thoroughly subserves alimentation of the organism; the best proof of which is furnished by the poor peasants who do not eat meat, yet are strong and healthy. This diet is of therapeutic importance in certain diseases. A vegetable diet limits to a minimum the production of toxines, such as neurin, muscarin, etc. It is indicated in insufficient functional activity of the kidneys and alimentary canal, indeed in all similar conditions where an accumulation of ptomaines in the blood might prove dangerous. It is also indicated in "putrid diarrhea." In diseases of the stomach, a vegetable diet is especially indicated, as the intestines are principally employed in its digestion, thus affording the stomach considerable rest. In the uric acid diathesis, this diet is also recommended.—*Wiener klin. Wochenschrift*, April 10, 1890.

The Suspension Treatment in Tabes and other Nervous Affections.—A reasonable period has elapsed since the introduction of this treatment sufficient to subdue enthusiasm, and it is interesting to learn the results when measured by calm and deliberate judgment. ROSENBAUM prefaces his communication with a history of the treatment, which having been reviewed in previous numbers of this journal, needs no repetition. The German cannot share in the enthusiasm of foreign, notably the French, physicians. The reports emanating from the French medical press have been especially favorable. In 50 cases of tabes reported by Charcot, 37 have been decidedly benefited by this treatment. The various theories concerning its mode of action are then considered. Hushalter maintains that during suspension the cord is stretched. Althaus refers the benefit received to a laceration of meningitic adhesions and softening of sclerotic patches. Since February, 1889, 85 patients subjected to 2,400 suspensions were under observation, although direct observations concerned 61 of the cases only. Five showed clear and progressive improvement, 20 were improved in a minor degree only. Subjective improvement was experienced in a few cases, although objectively no change was elicited. In a few cases drowsiness and languor followed treatment, disappearing however in a few days. The pain noted in all the cases was diminished. The symptoms most notably improved were the symptom of Romberg, and the gait. Fifteen cases exhibited improvement of the vesical symptoms, the rectum was less often influenced, and least often the potency. In 2 cases the gastric crises and vomiting disappeared. Improvement in the muscular sense and retarded sensibility was noted in a few cases. The ocular manifestations were uninfluenced in all the cases. Suspensions should not be practised without the supervision of a physician. Fatal cases after suspension have been observed by French writers. Charcot refers to rupture of the axilary artery, paralysis and edema, as having followed this treatment. Rosenbaum has never, after careful consideration of contraindications (atheroma of arteries, cardiac disease, etc.) observed unpleasant results. In non-tabetic cases (myelitis, paralysis agitans, etc.), no good results were observed.—*Muenchener med. Wochenschrift*, April 29, 1890.

At the hospital in Moabit, M. P. GUTTMANN treated by suspension 10 cases of tabes, 2 of myelitis, 1 of traumatic compression of the spinal cord, 7 of sciatica and 2 cases of kyphosis and scoliosis, attended by painful symptoms. The suspensions were conducted according to the method of Charcot. No accidents attended the treatment. In 5 tabetics many of the symptoms were improved, but the reflexes remained unaffected. One of the tabetics was enabled to resume his occupation. In the 5 other cases of tabes neither amelioration or aggravation was observed. The 2 cases of myelitis were improved. In conclusion, Guttmann speaks encouragingly of this treatment.—*Semaine Médicale*, May 14, 1890.

The Differential Diagnosis of Anemia.—True anemia signifies a reduction in the quantity of blood. It occurs in an acute manner after hemorrhages or it may be chronic as a manifestation of emaciation of the organism. Quantitative anemia is characterized by pallor, although the latter symptom may be present even when the blood is qualitatively and quantitatively normal. This latter condition is present in syncope, where the patient has not lost a drop of blood but bleeds, says DR. NEUSSER, "in his own abdomen," the cutaneous vessels being contracted and the intestinal dilated In collapse an anemia similar to that of syncope is present. The former are considered by Neusser as prototypes of acute pseudo-anemia, and are to be differentiated from chronic pseudo-anemia, which originates in an irregular distribution of blood, as in exophthalmic goitre and the so-called nervous anemia attended by violent pulsations of the aorta. A form of true anemia attended with qualitative changes of the blood is chlorosis. Chlorosis is characterized by a diminution of the coloring matter of the blood. the red corpuscles not being diminished in number. The pronounced anemia of the mucous membranes and the skin and the fugacious edema are not pathognomonic of chlorosis, being also present in post-hemorrhagic anemia. Dyspeptic chlorosis is referred to as anemia accompanied by gastric disturbances, the latter being symptomatically most prominent. Gastric disturbances are nearly always present in chlorosis, and are characterized either by chemical or mechanical functional disturbances of the stomach. The chemical disturbances result in either increased or diminished acidity of the gastric secretion, the latter prevailing. In some cases hydrochloric acid may be entirely absent. This latter condition is also present in atrophy of the gastric glands, pernicious anemia and carcinoma of the stomach, thus making the differential diagnosis often difficult. In carcinoma of the stomach, the contents nearly always show an acid reaction due to the presence of lactic acid, notwithstanding the absence of hydrochloric acid, and the quantity of pepsine is diminished. In the dyspeptic forms of chlorosis, on the contrary, notwithstanding the absence of hydrochloric acid, pepsine and peptones are always present. Regarding treatment, Neusser says that many cases are cured by simple iron treatment, whereas in others, not only is the iron badly tolerated, but it intensifies the gastric disturbances. The intolerance of many forms of dyspeptic chlorosis for iron may be removed by previous inhalations of oxygen, of which large quantities must be used. He begins with 50 litres daily, and quickly increases this to from 100 to 200 litres. Crude and desiccated blood have been employed in the treatment, and although he has used them, they were discontinued in consequence of diarrhea being developed. From many sources it has been observed, that in patients with chlorosis, who could not tolerate any preparation of iron, the ingestion of large quantities of raw meat was attended with successful results. This latter method seems in no wise irrational, as when raw meat is consumed the iron is introduced in the form of hemoglobin, which is at once taken up by the circulation. The objections to it are the obnoxiousness of raw meat to many patients, and the danger of tenia. Aside from the objections already cited, the meat diet is often contraindicated in those cases attended by *fetor exore.* The odor is largely derived from scatal a patomaine derived from animal food, and for this reason an absolutely vegetable diet is indicated.—*Wiener med. Presse,* February 9, 1890.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. Hoisholt, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Hypochondria in Females.—Dr. E. Mendel (*Deutch med. Wochenschr.*) defines hypochondria as a functional brain disease, the visible symptoms of which are fear and pain, and apprehension in regard to the condition of one's health. He divides hypochondria into three classes: (1) Simple hypochondria, in which the patients, seeing in very slight variations of health the beginning of fatal diseases, have only indefinite sensations. (2) Hypochondria with hallucinations, in which the patients have sensations in very definite organs, supposed by Mendel to be due to irritation of definite parts of the cortex. (3) The severest form of the disease, in which, besides the above morbid phenomena, there are disturbances in the higher sense organs; the patient sees things otherwise than the reality, hears voices inside of his head, etc. Mendel considers hypochondria a common disease among females of all ages. The complaints of the patients are especially frequent in relation to their sexual organs and the head. Women surrender to the disease earlier than men, giving themselves up to their feelings so as to be unable to perform their duties. Suicide is not common. There is often a tendency to masturbation, and symptoms of hysteria frequently accompany the disease. Out of 116 female hypochondriacs, only 6 showed symptoms of the disease before the age of 20, hypochondria making its first appearance most frequently between the ages of 20 and 40. Hereditary predisposition to nervous diseases was present in 75 per cent. of the cases. As a direct cause, Mendel had very frequently found mental shocks, occasionally betrothal. Gynecological operations had produced it in part through the mental effect, and in part from the loss of blood. The outbreak of the trouble is sometimes sudden, but its course is slow, and relapses may occur after weeks, months, and years. The disease may also pass into other mental disorders, like hypochondriacal melancholia or paranoia, or end by death. A diagnosis has to be made in women between hypochondria and hysteria. The latter occurs mostly in youth, the former in later years. In the one are stigmata and hysterical attacks, in the other not. In hysteria, the pain and hopelessness play a much less important part, and the condition is a more variable one. As regards the treatment of female hypochondriacs, Mendel states that married life can scarcely be looked to for a favorable influence; that gynecological treatment is to be employed under pressing circumstances only; that the food should be mostly or altogether vegetable; that change of scene and mountain travel have a favorable influence; and that treatment in an institution, if there is no special reason for it, is not to be recommended.—*Dublin Journal of Medical Science*, May, 1890.

Feigned Insanity.—At a recent meeting of the New York Neurological Society, DR. M. D. FIELD reported the following case: J. D——, indicted on a charge of grand larceny in the first degree, and having the prospect of five to ten years' imprisonment before him if convicted, had been in the Tombs for four weeks when examined by the doctor. Since his admission he had not spoken or made a voluntory movement; would not partake of food or water unless they were put into his mouth, when he would swallow mechanically. Sometimes he would wet the clothing or the bed. He had a fixed, staring expression, only occasionally winking. He was not cataleptic, although two physicians had so certified to the district attorney. Nothing could startle him out of his condition; neither pricking, nor dashing of cold water, nor pressure upon the supraorbital nerve. He lost thirty or forty pounds in weight. Subsequently he was sent to Jefferson Market Prison, from which he escaped by sawing out a bar, in conjunction with another prisoner. His associate was recaptured, and described how he had aided the malingerer in his deception. The feigning of the condition portrayed had been carried on for over three months. In the discussion which followed, DR. SACHS spoke of another interesting case of feigned insanity, in which the motive was to escape military duty. The young man, 22 years old, had suddenly become mute, and continued so for six or seven months. There were no other symptoms. All the military physicians had either agreed that the man was insane, or suspected that condition. He was finally sent to Dr. Westphal's clinic. At this time he further simulated a contraction of the right leg. It was impossible to surprise him at an unguarded moment, for even at night the attendants would invariably find the contracture present. He would so envelop the limb in the bedclothes that any attempt at examination would awaken him. Finally, an officer was hidden in a room where the patient was to meet a friend, with whom he talked quite freely, and the malingering was thus discovered. DR. DANA had seen stuporous forms of insanity at Bellevue Hospital, often associated with catalepsy. In cases of simulation of this condition, he had discovered it by placing the supposed cateleptic before another patient in the familiar attitude, with his fingers to his nose, which position appealed to the sense of the ridiculous to such an extent that the simulator would finally break down, whereas, of course, the true cateleptic remained unaffected.—*New York Medical Journal*, May 3, 1890.

A Question in Medical Jurisprudence.—Considerable interest is attached to a recent case of poisoning which occurred in England, involving certain questions in criminal responsibility. A poor woman, the mother of an illegitimate infant, who had been deserted by her husband and family because of her misconduct, attempted in her despair to take away her own life and that of her obnoxious offspring. With this object she swallowed the bulk of a large dose of laudanum, purchased in pennyworths, and administered the remainder to the child. The latter died with the usual symptoms. The circumstances appear to have justified the jury in rendering the verdict of wilful murder, although there seems to have been occasion at the same time for the charitable excuse in favor of the criminal, which accompanied the verdict. The plea of temporary mental derangement is one which here naturally suggests itself in extenuation of the crime. The proof of it must, however, not rest on mere sentiment or imagination. This woman understanding, in all probability, fairly well the rational consequences of her act, was not mad in the ordinary sense; but she was rather in the condition of hopeless despondency, which might be considered the borderland between reason and unreason? The close connection between this state and actual lunacy should not be lost sight of in determining the question of criminal responsibility. Without sanctioning the sentimental abuse of the term insanity, the jury may be conscientiously supported in their opinion, that the circumstances of this distressing case are sufficient to justify exemption from the extreme penalty of the law. The history of this occurrence also exposes the excessive laxity of the Poisons Act, which allows facilities altogether needless for the purchase of dangerous drugs, suggesting to legislators the expediency of amending the same.—*Lancet*, February 1, 1890. [If in England there be cause for complaint of the laxity of the law governing the sale of dangerous drugs, what must be said in this respect of the United States? It is to be regretted that it is so difficult to frame a law in this country, which in every way would prove effectual in checking the use of poisonous drugs for criminal purposes, and which would at the same time meet the approval of the public, which appears to be hopelessly ignorant of the facility with which crime may be committed under the existing law. The medical profession of this State is too heterogeneous for one to expect good results from leaving the control of the sale of such drugs in the hands of physicians, as is the case in Germany, and in other countries where poisons can only be procured by means of prescriptions signed and dated by a regularly licensed physician.—A. W. H.]

Insanity Produced by Ergotism.—During the epidemic of spasmodic ergotism which occurred in Hessen, Germany, seven years ago, Dr. FRANZ TUCZEK, of the Marburg Asylum, had occasion to study certain pathological conditions of the nervous system, in cases where mental derangement formed a sequela to ergotism. Of the 29 patients treated for ergotism in the Marburg Asylum, 9 are now dead. Of the 20 survivors, 15 have afterwards been examined by Dr. Tuczek, who has tried to keep his former patients in sight, so as to ascertain the permanent results of the intoxication. In those examined relapses of convulsions were frequent; two patients still suffer from epilepsy. Most of them have still defects of the intelligence, and are under the mental average of the normal population. Only three are quite sane, and these three are the only ones in which the knee clonus returned. There were no remaining disorders of sensibility, reaction of the pupil, or ataxia. More than half the patients still suffer from headache: a few complain of twitching, tingling, and girdle feeling in the limbs, more or less combined with giddiness and weariness. Although the symptoms of the working of the poison have existed for seven years, they do not appear to have a progressive character. Though the knee jerk has never returned, there is no tabes; but the patients are of diminished intelligence. In the four cases dying in the asylum, lesions were found in the posterior columns; in the grey matter, the usual proportion of nerve fibres were present, except in one case, where the clinical symptoms had been worse. In this the nerve fibres were found deficient throughout the whole extent of Clark's columns. Dr. Tuczek observes that the symptoms of insanity from ergotism have a close resemblance to insanity from epilepsy. The character of the fits is the same—grand mal, petit mal, intervals of rest, pre- and post-epileptic delirium—and the same beneficial effect of bromides may also be observed. He cannot say how many were the sufferers in this epidemic but whole families died out. Many persons still have epilepsy, and in every one of the infected villages there are a number of people who have a permanent loss of intelligence.—*Dublin Journal of Medical Science*, April, 1890.

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., Sacramento, Cal.

Mortality.—The deaths registered in 108 town districts of the State during the past month, in a population of 833,250, correspond to an annual rate of 14.14 a thousand, the total mortality reported having been 1,064. 151 deaths were due to zymotic diseases, 2.17 a thousand. Of these 18 were due to typhoid fever, 50 to cholera infantum, 19 to diarrhea and dysentery, 21 to cerebro-spinal fever, and 3 to whooping cough. 264 deaths resulted from diseases of the respiratory organs, giving an annual rate of 3.73. Of these 154 were due to consumption, 68 to pneumonia, 30 to bronchitis, and 12 to pulmonary congestion; the rate being for consumption and pneumonia, 2.208 and .979, respectively. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 610,000, was 15.81. The highest rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Jose, the lowest from San Diego.

METEOROLOGY.

By J. W. ROBERTSON, B.A., M. D., San Francisco, Cal.

Summary for June.—*Temperature.*—In the valley belt the temperature was mild, ranging from 72° F. at Red Bluff and 67° at Sacramento to 65° at Los Angeles. The lowest mean temperature was registered at Eureka, on the coast. From 55° at this point it increased to 59° at San Francisco, 61° at San Diego and 62° at Santa Barbara. The highest temperature registered in the state was 105.°7 at Los Angeles, but this extreme was only of one day's duration.

Rainfall.—There were traces of precipitation in the coast counties of Northern California, but there was no measureable rainfall or it was so slight as to be merely a heavy fog.

California—Tabular Statement for June, 1890.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	69.9	95.0	37.0	86.9	51.0	35.9	0	0.00	------	----	----	----	--------	
Berkeley......... "	58.8	82.2	45.8	74.4	53.0	21.4	2	T.	81.6	20	2	8	SW.	
Colfax........... "	67 0	96.0	44.0	------	------	------	1	------	------	----	----	----	SW.	Southern Pacific Co
Eureka.......... "	55.2	65.0	45.0	60.0	50.5	9.5	9	0.87	85.4	8	12	10	NW.	Signal Service U.S.A.
Fresno.......... "	72.8	104.0	46.0	90.1	56.7	33.4	0	0.00	42.3	26	4	0	W.	" " "
Keeler. .... "	73.2	96.30	46.3	86.7	59.8	26.9	0	0.00	26.6	29	1	0	NW.	" " "
Los Angeles.... "	65.0	105.7	48.1	79.1	56.1	23.0	1	0.02	66.3	9	21	0	W.	" " "
Monterey ...... "	58.6	78.0	48.0	------	------	------	0	.00	------	----	----	----	NW.	Southern Pacific Co.
Napa........... .. "	62.2	85.0	41.0	73.6	50.8	22.8	0	.00	------	21	9	0	S.	
Oakland......... "	59.3	81.0	45.0	------	------	17.1	0	.00	68.2	13	12	7	W.	
Paso Robles.... "	68.9	96.0	49.0	------	------	------	0	.00	------	----	----	----	S.	Southern Pacific Co.
Red Bluff....... "	72.6	104.0	47.0	86.5	58.6	27.9	2	0.11	48.4	25	5	0	S.E.	Signal Service U.S.A.
Sacramento. ... "	67.2	94.0	44.0	80.8	54.9	25.9	0	0.00	63.0	28	2	0	S.W.	" " "
San Diego....... "	61.5	93.0	51.0	70.8	57.4	13.4	0	0.00	69.6	15	15	0	W.	" " "
San Francisco.. "	59.2	81.0	49.0	66.9	51.6	15.3	2	0.10	77.2	16	12	2	W.	" " "
Santa Barbara.. "	62.4	93.0	45.0	71.9	52.9	19 0	1	.06	72.0	21	2	7	E.	
Santa Cruz...... "	61 9	84.0	47.0	------	------	------	0	.00	------	----	----	----	W.	Southern Pacific Co.
Yuma..........A. T.	83.8	107.0	61 0	100.1	67.5	32.6	0	0.00	30.0	27	3	0	W.	Signal Service U.S.A.

Blank (----) indicates data missing.

Occidental Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: AUGUST, 1890.

LEPROSY IN HAWAII.

The biennial report of the President of the Board of Health to the Legislature of the Hawaiian Kingdom that has recently been issued, deals mainly with the question of leprosy. This subject, while of profound importance to Hawaii, is one in which the outside world is also taking an increasing interest. The President of the Board, DR. J. H. KIMBALL, affirms his belief in the contagiousness of leprosy. He says "the united voice of all nations which have been cursed by its visitations, is as one in declaring that complete, thorough, and absolute segregation offers the only safeguard against its ravages. Dealing with the question on any other hypothesis is a delusion and a snare, and will cost in the future, as it has in the past, thousands of precious lives and untold treasure." The subject of the treatment of leprosy must naturally be a most important one. Dr. Kimball says: "Facts are accumulating on every hand, but unfortunately, no sure guide to a cure has yet been discovered; still we do not despair. Many cases are very much improved by treatment, and some we have almost dared to pronounce cured." In this connection the Board has secured the services of DR. A. LUTZ, a pupil of Unna, who, in January, 1890, was commissioned as "Government Physician for the study and treatment of leprosy."

Dr. Lutz's report embraces the first quarter of 1890. He commenced the year with 22 cases, 11 lepers and 11 suspected to be suffering from the disease. The cases were selected by choosing "people of intelligence and good will whose affections promised well for treatment, or were of peculiar therapeutical interest, or complicated with other curable diseases needing treatment." Regarding the cases treated, he says "not one of the cases received shows any increased development in the main disease." Cases of tubercular leprosy have improved according to the time they have been under treatment; several of the symptoms have diminished in intensity or completely disappeared. A similar effect was observed upon the large, diffuse, brownish pigmentations on the skin of the body. The outbreak of fresh tubercles was not prevented, but they occurred infrequently, and then in a diminished form. He believes that he may attribute to his treatment of eruptive fever, "already proved useful in several years' observation," that no large painful infiltrations, nor high and continuous fevers with subsequent cachexia were observed. Regarding the non-tubercular forms of the disease he has "ascertained the following facts:" The red erythematous and the large red edged spots resembling psoriasis may be quickly cured in many cases by external treatment. This also applies to chromatic and hyperchromatic spots, though they are more resistant. The least effect was obtained where there was marked atrophy and anesthesia combined. He thinks it probable that many of the prominent symptoms as anesthesia, nerve thickening, hypertrophy, contractures and atrophy, especially where they have existed for several years, are permanent changes not susceptible to amelioration and that a cure must be accepted with these defects.

He discusses the remedies employed from his former as well as his present experience. Chaulmoogra oil has been extensively tried. It was given in small doses, plain, in emulsion, in pill and in capsule. By careful procedure he has attained doses of 36 to 42 grains 3 times a day, without toxic effect. He thinks that in the larger doses it may be given some credit for the general good health of the patients when taking it. From observations made in Brazil and at his present station, Dr. Lutz says that salol has given him a very favorable impression in the treatment of leprosy. He evidently regards it as harmless even in very large doses (90 to 120 grs. daily), an opinion based upon experience during a yellow fever epidemic in Brazil. In half a dozen cases, by the daily use of these doses, the leprous fever was immediately interrupted and did not again appear while the drug was continued. In one of the cases the fever reappeared when the drug was discontinued but ceased upon the readministration of salol. He mentions the disappearance of acute eruptions in two cases under its use, and another in which tubercles appeared, but were much smaller than formerly. He has also used salicylate of soda "with apparently the same result," but prefers salol as being better supported by the stomach and not giving rise to tinnitus and deafness. Beechwood creasote was also tried and up to 20 drops (t. i. d.) was well borne by the stomach, but beyond an increase of appetite no beneficial effect was observed. Antipyrine was very serviceable in relieving the neuralgic pains. Mercury and arsenic he regards as of no value, and iodide of potash (usually badly borne) as of doubtful utility.

Amongst external remedies chrysarobin stands first. "Its action is to make the tubercles of some standing gradually disappear, being less effective on the newly arisen ones. It may be used with the same result in many of the eruptions of the maculo-nervous form, principally on the psoriasis-like spots." He has seen extensive paresthesia quickly improved by its external application and has never observed toxic effects, even when using large quantities. Pyrogallic acid resembles chrysarobin in its curative effects, but is slower, and when used extensively it may produce toxic symptoms. Following Unna's example, Dr. Lutz, on this account, only applies it to the face and hands. He has experimented with a one per cent. sublimate ointment (acid), which while free from the foregoing disadvantages is less active. Strychnine, tannic acid and ichthyol have not impressed him as possessing any specific value. The latter has a local effect in combatting inflammatory symptoms.

Dr. Lutz finds that leprosy is of the same type at the islands as elsewhere, and by no means more malignant. He says leprosy is a chronic disease and requires a chronic treatment, and upon this he bases the following conclusions: "If we learn to recognize the very first outbreak, as I have done during the last years, with several patients in my private practice, if we can check it as it seems to be possible by the use of salol and salicylate of soda, if we treat in the same way every feverish and eruptive period, giving in the intermediate time other remedies which have a favorable influence, and finally slowly remove the morbid deposits where they already exist, we do more to prolong the life of the patient than is done in all the sanataria for tuberculosis. At the same time we may avoid at least a good deal of the consequences of the untreated cases, and make leprosy, as it has proved with most of my private patients, a rather benignant disease."

DR. SWIFT's brief report possesses the peculiar interest attaching to a man having under his immediate observation a larger number of cases (1170) of this disease than any other living person. He believes that the disease in Hawaii is undergoing a spontaneous modification and assuming an entirely new type. He does not mean to imply that the tubercular type is becoming anesthetic or *vice versa*, but that there is a modification in each. A very pronounced feature in the anesthetic cases is the proneness to take on ataxic symptoms. In others the ataxic symptoms show abatement at the expense of other neural disorders, demonstrating the migratory character of the nerve lesions. From these cases Dr. Swift modestly says that he "hopes to be able to make deductions which may be of benefit to more competent observers." Of the cases lately consigned to Molokai, quite a large number were of the neural type; there were none of the old typical cases with the great pendulous earlobes so frequently met with some years ago, and he knows of but five such cases at present at the settlement. Dr. Swift says: "I could cite case after case where the marked symptoms of the disease have wholly disappeared, leaving only such changes as might be detected by an experienced physician and a close observer. I cannot agree with Dr. G. Amauer Hansen, of Norway, when he says that where the patient has arrived at this stage, he has been in the habit of considering him cured, for I have often seen these cases blossom out full fledged lepers in a surprisingly short time." Dr. Swift is, however, a strong believer in the satisfactory results to be obtained from treatment.

The general conclusion that may be drawn from the report is that leprosy in many cases is a self-limiting disease, and that the tendency to limitation may be greatly assisted by care and judicious treatment. This opinion coincides with the views of Hansen and Hutchinson, the latter insisting upon change of environment as a most important factor. In this respect, leprosy more closely resembles pulmonary tuberculosis than any other affection, and it seems quite possible that in the former the same abatement or disappearance of symptoms may take place that are well known to occur in the latter. That this can be accepted as any more than a cessation of the morbid process is at present extremely doubtful, but if the period of cessation can be indefinitely prolonged, it is practically equivalent to a cure. Assuming the contagious nature of leprosy, it will be an interesting point to determine whether a subject in whom the active processes of the disease have subsided, is still a source of infection, as is the case with many syphilitics having no apparent lesion. Meanwhile the result of Dr. Lutz' investigations and treatment, which Dr. Swift is also carrying out at Molokai, will be awaited with interest.

NOTES.

Committee on Division of the State Society into Sections.

It will be remembered that a resolution was adopted at the last meeting of the State Society providing for the appointment of a committee to divide the Society into two or more sections and to arrange the same for the next annual meeting. In accordance with this resolution the President has appointed the following committee. Henry Gibbons Jr., San Francisco, Joseph Kurtz, Los Angeles, J. H. Parkinson, Sacramento.

Radam's Microbe Killer.

This panacea for so many diseases is really very far from innocent or harmless, but on the contrary is decidedly injurious. Mr. Wm. M. Searby, of San Francisco, in a paper read before the California Pharmaceutical Society says that the proprietor "has forced on the community a remedy that is absolutely dangerous, probably the most dangerous that has ever been put before the public." Mr. Searby goes on to say that the fact that it is sold at $3 a gallon when it can be manufactured for five cents, cuts no figure in the matter. If the article costing five cents is worth $3 to the purchaser he is not swindled, and this question may be left to the public to determine. "Our contention is that it is not what it purports to be, nor will this concoction, when taken into the stomach, kill all the microbes in persons affected with diseases in which these are present, either as cause or effect. The whole thing is unscientific, irrational and empirical, and it is our duty as pharmacists, knowing the danger to be apprehended from the long continued use of it, to inform the public as to its nature." An analysis by Prof. Wenzel, of the stuff as sold in San Francisco, shows that it consists of the following ingredients:

Sulphuric Acid (oil. vitriol) - -	grs. 278.2
Common Muriatic Acid - - -	grs. 105.2
Claret, - -	a sufficient quantity to color.
Spring Valley water - - -	1 gal.

It will, therefore, be seen that the use of this compound can prove quite harmful, and physicians will do well to plainly inform their patients of the fact.

Medical Legislation.

The Board of Examiners of the State Society have issued a circular soliciting the support of the profession on behalf of the measure to be reintroduced at the next session of the Legislature. This bill, on the whole, is probably the best measure possible under existing circumstances, and those who favor medical legislation should bear this in mind. There are members of the profession opposed to any legislation of this kind. To elevate medicine, however, through the voluntary adoption of a higher standard by the colleges, is a possibility of the remote future, and it must be admitted that the proposed measure arrives at this end by a more direct path. It should not be forgotten that the standing of the California schools is uniformly high; a three years' course is demanded and the examinations are real tests of knowledge. Under present legislation, graduates from schools possessing much lower requirements are on precisely the same footing, which seems to be a manifest injustice. Another aspect of this question analogous to the foregoing, is the disability under which the American graduate labors abroad, whilst in the United States the holder of a foreign diploma is on an equal footing with all. The American graduate abroad is technically an unqualified man, the reason assigned for this course being the number of inferior graduating bodies in his country. The American physician asks that these sweeping measures be modified and that discrimination be exercised on behalf of those schools whose standing is unquestioned. But the authorities are slow to move, and it certainly appears as if this wrong would be perpetuated. On the other hand, whilst the possession of many of the foreign diplomas is surroundud by most desirable restrictions, there is there, as here, a very marked variation in the standing of medical institutions, and a still finer distinction between licenses, degrees and permits to practice, some of which, in fact, do not entitle the holder to practice medicine at home. It would therefore seem only logical, that the fitness of the foreign graduate should be practically tested here, and the proposed medical law accomplishes this and places all upon an equal footing.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, June 24, 1890.

The President, THOS. W. HUNTINGTON, M. D., in the Chair.

New Member.—W. R. CLUNESS, JR., M. D., was duly elected a member of the Society.

Wound of the Antrum.—THE PRESIDENT exhibited a patient who had on the 23d of last February accidentally struck himself with the point of a pick, making a wound about midway between, the internal angle of the right eye and the ala of the nose. There was at present a fistulous opening communicating with the antrum, through which the probe detected dead bone. The original wound had healed, but had reopened. The cavity had been thoroughly irrigated with antiseptic solutions, but without permanent benefit.

DR. G. L. SIMMONS said there was a communication with the antrum, the floor of which was undoubtedly necrosed. He would extract the second molar tooth on that side, and thereby establish free drainage.

Laparotomy for Gun Shot Wound.—R. S. B——, a laborer, aged 47, was brought to the Southern Pacific Company's Hospital, on the evening of May 18, 1890, six hours after having received a gun-shot wound of the abdomen. The weapon was a pistol of 38 calibre, fired at close range. The ball entered about four inches above the umbilicus, and one-half inch to the right of the median line. The patient suffered great pain and was in a state of partial collapse; extremities were cold, pulse rapid and feeble. Considerable blood had oozed from the external wound. An operation was suggested and at once accepted by the patient. An incision, three inches long, was made in the median line; the abdominal cavity was found flooded with liquid and coagulated blood. A wound in the transverse colon was found and closed; but owing to severe hemorrhage, proceeding from the posterior part of the cavity, and to the rapid failure of the patient's strength, the operative wound was quickly closed. Death ensued a few minutes later. An autopsy revealed the fact that the ball had penetrated the transverse colon, both walls of the stomach, and the vena cava ascendens, whence proceeded the immense volume of blood.

New Improvised Splint.—DR. F. B. SUTLIFF exhibited some splints which he had made in a recent emergency and had found very serviceable. The material was the common wire screen, which could be bent and cut into any shape. He had improved the original hastily prepared model by covering it with muslin and coating this with dextrine. This greatly strengthened the apparatus, which was at the same time very light and convenient.

Rollin's Aseptic Suit.—DR. J. L. ROLLINS, of Auburn, exhibited and demonstrated his "aseptic suit." The apparatus consists of two pieces fitting together by an air-tight joint at the waist line; the former clothing the lower extremities, the latter completely covering the upper extremities and the head. Under the sole of each foot is a small bellows, operated by the wearer, who pumps air through an absorbent cotton filter in order to maintain a comfortable temperature within. The air emerges by a similar filter situated behind the wearer's head. A small pane of glass in the head-piece gives perfect facility for vision, and the lightness of the material covering the fingers readily permits of manipulation.

Hours of Study at the Sacramento High School.—DR. W. A. BRIGGS said that he wished to direct the attention of the Society to the hours of study at the Sacramento High School, which he regarded as unduly long. He then moved the following resolution, which was adopted by the Society:

Resolved, That in the opinion of this Society the hours of continuous study and recitation in the High School of Sacramento, are excessive, and if unchanged will result in serious and permanent impairment of the health of many of the pupils.

After considerable discussion, the following committee was appointed to bring the matter before the Board of Education: W. A. Briggs, G. L. Simmons, J. R. Laine.

Injuries to the Ear in the Removal of Foreign Bodies.—DR. W. E. BRIGGS reported the following cases illustrating the dangers of reckless manipulation in attempting to remove foreign bodies from the ear. The first case was that of a man who called upon him the week previous to have a wild oat removed from his left ear. He stated that a physician had tried to remove it, but the patient believed that it was not all out. According to the man's statement he was stood before an open door, and without a reflector or means of illuminating the meatus, an effort with instruments was made to remove the foreign body. The operation was very painful, and immediately after the patient could not hear with that ear. Upon examination a few hours after the first operation, I found the meatus nearly filled with blood, and after carefully washing out the ear with warm water I saw a pearly white body a little distance external to the drum, the latter being extensively lacerated. A touch with a probe showed the white body to be detached from neighboring tissues, and it was lifted out without pain or any traction. As you will see (specimen exhibited), this foreign body was the patient's malleus. The hearing in that ear has therefore been totally lost. The second case came under my care a few years ago and is a warning to people against allowing the unskilled to operate in these accidents. I was hurriedly called and found a boy 6 or 7 years old under the care of an irregular practitioner, who, without medical assistance, had kept the child under the influence of chloroform for two hours, while he had been digging at the ears with a bent hair pin without adequate light. I found both the ears full of blood, and after syringing them with warm water, I could see parts of a bean in each ear. I declined to have anything further to do with the case unless I was allowed to move him where I could get proper illumination and assistance. He was therefore brought to my office, and with the assistance of Drs. Huntington and Parkinson, he was put under the influence of ether and the mutilated beans removed. The drums and small bones were entirely gone and the inflammatory reaction which followed was extremely severe. Symptoms of brain implication presented, but the patient survived. He was, however, entirely deaf, and I may add, has, since then, been an inmate of the Deaf and Dumb Asylum at Berkeley. The fact that such injuries to the ear do occasionally occur, is my excuse for calling attention to these unfortunate cases. It would hardly seem necessary in this age of progress to state that no instrument should ever be introduced into the meatus without good illumination of all the parts of the ear. A doctor who gropes in the dark for a foreign body in an ear, is certainly guilty of malpractice.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Changes in the Paris Medical Faculty—Medicine in its Relation to Art—Examinations of the Brains of Epileptics.

Some great changes in the professional staff of the Paris Medical Faculty are about to take place. The death of M. Trélat, and the retirement of Professor Richet, leaves two chairs vacant. In the natural order of things, M. Guyon should be M. Richet's successor, but in this case what is natural is not logical. M. Guyon's specialty is urinary affections, and it is rumored among those who know, that he will be made happy and useful by having the clinical chair of urinary diseases. At the Charity Hospital, M. Tillaux, one of the most distinguished of what are called the "young surgeons," will succeed the veteran professor, who at the age of 75, after 30 years' service as professor and hospital surgeon, retires from what may be called public medical life. In accordance with an existing regulation, professors of the medical faculty, also hospital surgeons and doctors, have to resign office at the age of 75. M. Richet's medical career is a brilliant one, his clinical lectures at the Hotel Dieu were always fully attended by medical students and foreign doctors visiting Paris; his somewhat pompous manner was perhaps good naturedly ridiculed by his pupils and disciples, who nevertheless held his attainments in respect, and gladly profited by the able instruction he was both willing and capable of giving. Richet's "Traite d'Anatomie" was in its time the Bible of medical students. No student went through the curriculum of his studies without it. M. Richet was the first medical professor of the Paris Medical Faculty who exacted that he should be addressed verbally as Professor. In France, medical men like princes and nobility are addressed simply as Monsieur, and the title, whatever it may be, is only given when an introduction is made. M, Richet probably found the sound of professor sweet to his ears. When he was addressed as "Docteur" he said gently, but with consummate dignity, "*Non, pas docteur, Professeur, celui qui fais des docteurs.* (No, not doctor, professor, he who makes the doctors.") M. Charles Richet, the son of Professor Richet, ex-surgeon en chef at the Hotel Dieu Hospital, is professor of physiology at the Paris Medical Faculty, he has connected his name with hypnotism, spiritualism and suggestion, and has also made a series of researches on animal heat. The *Rèvue Scientifique* probably owes a considerable part of its success to his able editorship. Some novels also bear his name. MM. Terrier and le Dentu are spoken of as candidates for the chair of M. Trélat. Many believe the choice will fall on M. le Dentu. Both are such able men that the selection becomes difficult. Perhaps the question of *suaviter in modo* will decide the balance as *fortiter in re* cannot.

M Paul Recher, the director of M. Charcot's laboratory, has always taken great interest iu art in relation to medicine; conjointly with M. Charcot, he wrote the interesting work entitled "Des Hysteriques dans l'Art"—all the hysterical subjects painted by artists as reputed, saints or visionists, people possessed by the devil, etc., are described in this work, which is fully illustrated. M. Paul Recher has just published a splendid volume, "Sur l'Anatomie des Formes," especially for the instruction of artists. In the "Salon" of this year he exhibits a fine piece of sculpture entitled "Le Primer Artiste du Temps de la Pierie Tailleé." The first artist holds in his hand a model of a Mammoth, which he has sculptured.

M. Chaslin, Assistant Physician, at the Bicêtre Hospital communicated to the Biological Society, March, 1889, the results of his examination of five brains of epileptic subjects, presenting the functional form (essential epilepsy). Three of these brains appeared to the naked eye to present atrophied sclerosis, without adhesion of the pia mater. The cornu ammonis, the corpora olivaria and more or less of the cortical substance exhibited this pathological transformation. The microscopical examination showed the lesion to be constituted by the presence of very fine fibrillæ, very refractory throughout their entire length. Among these fibrillæ were nerve cells and vessels free from inflammation. In one particular spot of the neurogliæ especially, atrophied bundles composed of these fibrillæ were observed to gradually develop. M. Chaslin considers it demonstrated that there is no question of mesodermic connective tissue, but of ectodermic neurogliæ. Since the researches of MM.

Renault, Ranvier and Vignal, it is known that normally, neither in the brain nor spinal medulla, is there any connective tissue except that of the vessels. The tissue which serves to maintain these organs in shape proceeds from the external layer of the blastoderma. In the brains examined by M. Chaslin, the sclerosis in question is not that lesion commonly termed sclerosis, but an abnormal or pathological development of the neuroglia quite independent of the connective tissues of the vessels in as much as these latter were normal. The psychomotor zones of the two other brains appeared to the naked eye to be normal, but with the microscope the primary stage of the lesion of the neuroglia could be detected; the fibres of the superficial layer were as visible as those of the medulla. In the normal condition it is the contrary which takes place. M. Chaslin has more recently examined five other brains of epileptic subjects and has observed either by the naked eye or by the aid of the microscope the presence of gliomata in different degrees. From the study of these ten brains, M. Chaslin draws the following conclusions: What in some instances is called cerebral sclerosis is a pathological development of neuroglia, probably congenital. The blood vessels do not play any role in the lesion, it is a question of gliomata. (1) If microscopic preparations are compared with preparations of general paralysis, it will be seen that in these last the vessels are much altered, likewise there is a considerable proliferation of neurolgia and adhesion of the meninges. There is thus a difference existing between these two forms of sclerosis, neither of which are in connection with connective tissue, but one is of vascular origin, the other is not; it is this latter which is gliomata. (2) In essential epilepsy dispersed gliomata is seen (according to the ten cases cited), either by the naked eye or by microscopic examination; when the cornu ammonis are indurated, there is also gliomata in the cortical substance.

PARIS, July 1, 1890.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Dystocia.—Liquor Ferro-Manganatus Peptonatus.—Apostoli's Method.—The Coincidence of Psoriasis Vulgaris with Dermal Syphilis.—Congenital Hygroma.—The Bactericide Effect of Blood.

Prof. R. Chrobak has recently furnished some interesting details regarding dystocia due to abnormities of the uterus and cervix. He mentions the case of a woman, 25 years of age, who had been normally confined for 5 years previously, and who was now in the 36th week of pregnancy. The vagina was normal inferiorly but superiorly the roof was solid and inelastic; the cervix was absent; in the middle of the vaginal arch there was a small projection from the mucous membrane, permeable to the little finger. The surface from which this protruded presented hard infiltrations and was absolutely impermeable. Through this infiltrated portion the fetal head could not be felt. The diagnosis of carcinoma was made, and Prof. Chrobak determined to induce premature labor and at the same time to extirpate the cancer. After thorough disinfection a bougie was inserted between the membranes and the uterus, when labor and rupture of the membranes supervened On the evening of the second day the uterine orifice had dilated to 3 cm. As the lower segment of the uterus was hard and unyielding, labor was terminated by incising the structures laterally and delivering with the forceps. The child was asphyxiated, but was resuscitated. The wounds in the cervix were sutured and drained. In 14 days the lesions had healed by first intention, the induration of the cervix and of the vaginal roof had disappeared. In a further pregnancy, ending in abortion, the induration of the uterus and cervix which had come on within ten days, entirely disappered. Microscopical examination of the small nodule situated under normal mucous membrane, showed an increase of the connective tissue and small celled infiltration, a condition Prof. Chrobak considered to be due to syphilis.

Dr. Gryglewicz states in the Polish journal *Nowiny Lekarskie*, that he has repeatedly used the liquor ferro-manganatus peptonatus recommended by Ascher, and obtained good results from it in cases of chlorosis and anemia, in convalescence, as well as after great hemorrhages. This remedy has no unpleasant effect on the digestive organs, and patients like to take it owing to its agreeable taste He gives three coffee spoonsful a day—half of this dose in the case of a child—with wine or syrups, and continues it from 20 to 90 days.

Dr. H. Hazslinszky, writing in the Hungarian journal *Gyógyaszat*, says that he has used Apostoli's method with uterine fibroids for a year and a half, and had obtained satisfactory results from it. In subserous tumors the results were least satisfactory, because the efficient electrode could only act upon the growth through the abdominal walls. For this reason Dr. Hazslinszky introduced the sound as far as the point of contaet of the tumor with the uterus. A hard rubber canula was passed over the sound and the latter withdrawn, being replaced by a needle which was then pushed into the tumor for 2 to 3 cm. In this way the current acted directly upon the growth and he had not observed any unpleasant results. For the abdominal electrode, instead of clay he uses a flat sponge, dipped in common salt solution. The women thus treated were outdoor patients; applications were made every second day and currents of 150 milliamperes for 20 to 25 minutes were occasionally used. He could not observe any disagreeable effects. In one case the patient was 50 years of age, the fibroid was subserous, extending about 3 ins. above the umbilicus. Disturbances of respiration and diarrhea were present. Forty-seven applications were made, extending over six months. The subjective disturbances disappeared, the tumor receding below the umbilicus. In a second case the patient was 39 years old and was suffering from a myoma, the size of a fist, accompanied by metrorrhagia. After the *séance*, the hemorrhages disappeared, and after 16 applications the tumor was reduced one-half in size. In a third case, dysmenorrhea, cardiac spasm and fits of syncope were present as complications. No treatment was possible owing to great sensitiveness to the action of the current. In a fourth case, there was subinvolution, pains and irregular hemorrhages. The latter disappeared and the uterus had become normal in size after three treatments. In the fifth case, there was profuse and continued menstruation in a "uterus bicornis," one of the horns being as large as a small fist. After 20 *séances* this had diminished in size and menstruation had become normal. In several other cases, with similar conditions, equally good results were obtained.

Prof. Neuman has reported two cases of coincident psoriasis vulgaris and dermal syphilis. It was only after the removal of the psoriasis scales that the brown red, sharply limited syphilitic efflorescence could be distinguished from the bright red ones. The first case, a man aged 21 years, presented a sclerosis in the sulcus of the elbow and one over the extensor aspect of the extremities, whilst psoriasis vulgaris was present on the trunk. The inguinal glands were swollen and between the patches of psoriasis a roseola was well marked. Condylomata were also present. After treatment with injections of calomel, the parts at the periphery looked like erythema iris. Recovery ensued after 7 injections. The second case was that of a man 27 years of age, suffering for five years from psoriasis, who acquired syphilitic sclerosis 5 months previously. On examination, psoriasis vulgaris was found over the extensor aspect of the upper extremities, brown-red syphilitic nodules over the trunk and a combination of both these processes on the lower extremities and in the forearms; the surface of the eruption showing desquamation and hemorrhage, the deeper portions, infiltration. Antisyphilitic treatment removed the specific symptoms without effecting any change in the psoriasis. Microscopic examination showed, in addition to the usual histological conditions found in psoriasis, pigment cells with granular contents of a different color. This led to the conclusion that the hyperemia of the psoriasis favored the syphilitic eruption.

Dr. Ypavic has recently brought before the Society of Physicians of Styria, a case of congenital hygroma of the neck, in a child two years of age. At birth the tumor, which was about the size of an apple, was situated in the left axillary region. It had since grown to an enormous size, and now reached from the sternum in front to the vertebral column behind. The tumor was elastic and fluctuating; numerous large veins traversed the external wall. Some of the fluid obtained by exploratory puncture was examined by Prof. Eppinger, and found to contain albumin. Microscopically, fat globules, lymph corpuscles and a few endothelial cells were seen. The prognosis in this case was a fatal one. Prof. Wölfler, of Gratz, in commenting upon the case, directed attention to the genesis of these tumors. They were only found in the region of the thoracic duct, and were due to a congenital ectasis of the lymphatics produced by disturbances in the discharge of the lymph. There were also congenital cysts in this region which admitted of a casual connection with accessory thyroid glands, bronchial cysts must also be considered. All these tumors were beneath the chest muscles, and the clavicle, in the neighborhood of the large vessels, and were often adherent to the veins. As to treatment, evacuation with subsequent injection, which had been tried, was only possible with small cysts. In this case, a mixture of iodoform, ether and oil was preferable. He had succeeded in curing a very large cyst of this character by passing drainage tubes and setons charged with iodoform through it. By this means the tumor was dried up after several months.

Prof. Y. Foder, who has been carrying out a number of experiments on the bactericide effect of blood, reports some of his results. He finds that the bacilli of anthrax survive in larger numbers in defibrinated arterial than in venous blood, and in fresh blood more than that which had been exposed to the air for several hours. Blood allowed to stand for 16 hours showed no bactericide effect at all. On one occasion freezing did not affect this property, but on several others it destroyed it; as also happened when it had been warmed to 50° C., though a lower temperature (38° to 40° C.) increased the bactericide properties. Prof. Foder also examined the effect of various drugs, injected into the stomach, upon the bactericide properties of the circulating blood. Dilute hydrochloric acid, tartaric acid (3 to 5 gm.), lactate of quinine (0.6 to 1 gm.) diminished these properties, while muriate of sodium (3 to 5 gm.) rather augmented it. Alkalies invariably increased it. The decrease in the number of the anthrax bacilli inoculated into the blood, was as follows: Carbonate of ammonia (from 2 to 5 gm.): before the injection, 27 per cent.; after the injection, 38 per cent. Phosphate of sodium (from 2 to 5 gm.): before the injection, 32 per cent.; after the injection, 60 per cent. Carbonate of sodium (from 2 to 5 gm.): before the injection, 23 per cent.; after the injection, 76 per cent. Carbonate of potassium (from 2 to 5 gm.): before the injection, 48 per cent.; after the injection, 77 per cent. Carbonate of sodium (from 2 to 5 gm.): before the injection, 29 per cent.; after the injection, 83 per cent. He injected into the stomachs of rabbits, subcutaneously, from 1 to 5 gm. of the bicarbonate of sodium, and made, either simultaneously or after from 5 to 24 hours, inoculations with anthrax. The control rabbits which had not been protected by the sodium salt, succumbed, and numerous bacilli were found in the blood and in the spleen. Out of 19 rabbits protected, 3 (15.6 per cent.) died. 9 (47 per cent.) of the rabbits died, and no bacilli, or a very small number of the bacilli, were found in the blood; these rabbits, however, survived the experiments for a considerable time. 7 animals (37 per cent.) resisted infection, and this was also occasionally observed in subsequent experiments. Dr. S. Gerlóczy had been induced by these experiments to try the bicarbonate of sodium in typhoid, at the Rochus Hospital, and had observed a favorable influence from it. Dr. O. Petrick alluded to the difficulty of counting the bacteria in the blood after inoculations; and to the fact that in estimating a decrease or increase, it should be remembered that many of the bacteria were retained in the capillaries of the liver and spleen, and in the marrow of the bones, being, in fact, filtered out. Ponfick had stated that the white corpuscles of the spleen were able to take up granules of cinnabar, and that these became localized; but the granules could also be found in the capillaries of the marrow after extirpation of the spleen. Similar conditions were observed in the pigment granules in the blood in cases of intermittent fever, which disappeared after the attack. Prof. Arenstein also stated that he had found them in great numbers, after death, in the capillaries of the liver and spleen, and in the marrow. Dr. Y. Donath said that the bactericide property of the organism was a medical postulate, when we considered how many bacteria entered the body through the lungs, or the surfaces of wounds. Prof. Foder deserved credit for demonstrating that this effect was to be ascribed to the influence of the blood. He did not think that this was due to the alkalies, but rather to the increased power of oxidation that they produced. Thus we knew that albuminoid bodies are more readily oxidized by ozone in an alkaline solution. Under the title of disinfectant, in its widest sense, we understand a remedy capable of killing microbes, though these remedies might differ widely in their chemical constitution. A drug, as common salt, might be inert in a diluted state, and most active when concentrated. Prof. Foder's experience supported the theory that the oxygen of the blood had a bactericide effect, as he had found that arterial was much more active than venous blood.

VIENNA, July 2, 1890.

CORRESPONDENCE.

The Iodoform Mania.

Dear Sir—Let me enter a protest against the indiscriminate use of this valuable medicament, not that it is essentially harmful in all cases, but in the belief that it is frequently employed to the exclusion of more appropriate remedies. Is there not a lamentable tendency to regard every new medicine as a panacea, to use it *ad libitum*, and in this instance *ad nauseam*, for a time, and then, perhaps, throw it overboard altogether? The history of Monsel's Salt, of which I saw and tested the first sample made on this coast, is apropos. It was originally intended for, and is yet, a most reliable styptic. In a brief time it ran the gamut of all sorts of lesions from chancre up. Then came a reaction to the extent almost of ignoring it. Yet the fact remains, that to control hemorrhage and to stimulate certain indolent ulcers, sub-sulphate of iron is the remedy *par excellence*. And, now, in the matter of iodoform, I believe it to be an excellent protective in aseptic conditions; but that it is an antiseptic in any true sense, I have greatly doubted. If at all so, it is through the liberation of iodine when in contact with the tissues. And here the inquiry arises, if iodine is the active agent against sepsis, why punish the atmosphere with the disgusting odors of the salt? An instance of misapplication, as I thought it, came under my observation some years ago, during a consultation upon the case of a member of the profession, who was a victim to malignant disease. The attending surgeon persisted in the use of iodoform with the result that the erect epitheliomatous penis rapidly melted away under its protective ægis. Immediate amputation might have prolonged, if it could not save, life. And further, I think its employment in diseases of the genito-urinary organs, when attended with suppuration, is a grave mistake. In confirmation of these views, long entertained, I read of recent experiments in Germany in which various microörganisms actually flourished in the presence of iodoform.

Yours truly, C. M. FENN, M. D.

San Diego, Cal.

REVIEWS AND NOTICES.

ELECTRICITY IN THE DISEASES OF WOMEN, WITH SPECIAL REFERENCE TO THE APPLICATION OF STRONG CURRENTS. By G. Betton Massey, M. D., Physician to the Gynecological Department of Howard Hospital; late Electro-Therapeutist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases, etc. Second edition, revised and enlarged. Philadelphia: F. A. Davis, pp. xii—240. Price $1.50.

The early appearance of a second edition of this work indicates that the profession at large concurs in the favorable opinion expressed by THE MEDICAL TIMES in its review of the previous edition. The author has embraced the present opportunity of revising, enlarging, and, in part, rewriting the original work, thus presenting the results accruing from his experience in the interim. He reports 38 cases treated by electricity, in its various forms, with relief or cure in every case but one. May we not fear that in this the uninitiated will see a royal road to success in gynecology? Certain as we may be of the value of electricity in the diseases of women, we should still avoid exalting expectation above the possibility of fulfilment. Another and a more serious criticism may be made. Insufficient stress is laid on the importance of antiseptic precautions. Whoever habitually proceeds to galvano-chemical cauterization of the uterine cavity without any other preliminary than the patient's "flushing the vagina with a boracic acid solution on rising in the morning," will come to grief if not to the penitentiary. In the main, however, and particularly in the object lessons of the introductory chapters, the work is an admirable one and may be safely and heartily recommended to professional favor.

HOW TO PRESERVE HEALTH. By Louis Barkan, M. D. pp. 344. Price, $1.

The object of this work has been to give "to the public an available handbook of hygiene and sick-room assistance, founded upon the most recent developments in medical knowledge." The first part of the volume is devoted to general hygienic conditions; food, clothing, occupation, and the dwelling are briefly and intelligently discussed. The suggestions made are good, and much may be learned by careful perusal. The second part, comprising one-half of the book, deals with "the care of the sick." Under this heading are grouped most of the diseases and injuries that afflict mankind. This is, we admit, a very difficult subject to handle in a satisfactory manner. There is much that is good, and some that is hardly to be recommended. Methods of treatment are mentioned as being employed, accompanied or not by the statement that they will be used by the physician. As all, or nearly all, of these should not be carried out by even the most intelligent laymen, they had much better be omitted. Thus, an "accurate proof of death, if it exists, may be obtained by thrusting a fine aspirating needle into the heart muscle between the fifth and sixth ribs, an experiment attended by no danger when the needle is not inserted too deeply. The slightest motion of the heart will then be detected," etc. On the other hand, many of the suggestions, particularly those relating to pulmonary consumption, are excellent.

AN EPITOME OF TRIPLER'S MANUAL AND OTHER PUBLICATIONS ON THE EXAMINATION OF RECRUITS. By Chas. R. Greenleaf, Major and Surgeon, U. S. A. Washington: Wm. Ballantyne & Sons. Price, 75 cents.

This little book is an epitome of the larger "Tripler's Manual," and has been compiled for the use of recruiting officers, especially at stations where a medical officer is not available. It is quite free from technical terms, the few occurring being explained in the text. It is concisely but plainly written, and the arrangement is good. The typography is very clear, and the use of heads and subheads throughout greatly facilitate reference.

SPINAL CONCUSSION SURGICALLY CONSIDERED AS A CAUSE OF SPINAL INJURY AND NEUROLOGICALLY RESTRICTED TO A CERTAIN GROUP, FOR WHICH IS SUGGESTED THE DESIGNATION ERICHSEN'S DISEASE, AS ONE FORM OF THE TRAUMATIC NEUROSES. By S. V. Clevenger, M. D., Consulting Physician Reese and Alexian Hospitals, late Pathologist County Insane Asylum, Chicago, etc., with 32 engravings. Philadelphia: F. A. Davis., pp. vi. 360. Cloth, $2.50.

In the preface to this volume it is stated that the treatises on this subject now in use are twenty years behind the times. To those familiar with current medical literature, this assertion seems hardly credible. Surely few subjects have attracted more general attention, or been more exhaustively treated than the one selected by Dr. Clevenger. The work before us fails to commend itself in any particular. The chief argument is toward the establishment of opinions and doctrines which, if not obsolete, have been so modified as to be hardly recognizable. From a literary point of view, its faults are innumerable.

REPORTS, ANALYSES, AND NEW INVENTIONS.

The Sterilization of Infant Foods.

Messrs Reed & Carnrick, who have devoted considerable attention to the manufacture of infant foods, have recently perfected a process by which their "Soluble Food" and "Lacto-preparata" can be placed upon the market in an absolutely sterilized condition. Briefly described, the process is as follows: The milk, after being partially peptonized, is sterilized under pressure, the milk sugar added to the dried food, has previously been sterilized, while the dextrine is naturally so, its preparation involving a temperature of 300° F. The foods are then brought into a "germ-tight" room, the air for which is drawn through a filter packed with sterilized cotton from an outer protected room, and subsequently again blown into the entrance room maintaining a continuous circulation and refiltering. Thus, when the door of the inner room is opened, an outgoing air current prevents the entrance of impurities. The tins used in packing the foods have also been sterilized, and when filled are hermetically sealed. At every step of the process where the ingredients are exposed, it is only in the presence of sterilized air. For the information of our readers we may say that this style of package is not yet to be had in the Pacific Coast market, and the familiar brown bottle that has already done good service must still be used.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held July 2, 1890, the following physicians were granted certificates to practise medicine and surgery in this State:

Rollo Stevens Clason, Oakland; Cooper Med. Coll., Cal., Nov. 12'89.
Chas. A. Cromett, San Leandro; Rush Med. Coll., Chicago, Ill., Feb. 21'77.
George A. Cutler, Simi; Med. Dept. Univ. of the City of New York, 1854.
Thos. Gallivan, San Francisco; Royal Coll. of Surgs., King and Queens Coll of Phys., Ireland, Aug. 1'88.
Wm. P. Simpson, San Francisco; Cooper Med. Coll., Cal., Nov. 17'87; Med. Dep. Univ. of the City of N. Y., New York, June 12'90.

CHAS. E. BLAKE, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from June 16, 1890 to July 17, 1890.

First Lieutenant Eugene F. Swift, Assistant Surgeon, is relieved from duty at Fort Spokane, Washington, and will report in person to the commanding officer, Fort McDowell, Arizona, for duty at that station, relieving Captain Marlborough C. Wyeth, Assistant Surgeon, who, on being thus relieved, will proceed to Fort McIntosh, Texas, and report in person to the commanding officer thereof for duty at that station. Par. 10, S. O. 140, A. G. O., June 16, 1890.

Captain Rudolph G. Ebert, Assistant Surgeon; First Lieutenant Leonard Wood, Assistant Surgeon, are assigned for duty with the troops ordered for field instructions by G. O. No. 8, c. s., from these headquarters, and will report on the 24th inst. to Colonel William R. Shafter, First Infantry. Captain Ebert will prepare, and forward to the Medical Director at these headquarters, requisitions for the medical supplies required for the command. Par. 1, S. O. 50, Dept. of Cal., June 18, 1890.

First Lieutenant E. L. Swift, Assistant Surgeon, is relieved from temporary duty at Fort Sherman, and will return to his former station—Fort Spokane—from which post he will proceed without delay to join his station in the Department of Arizona. Par. 1, S. O. 67: Dept. of the Columbia, June 26, 1889.

First Lieutenant Robert R. Ball, Assistant Surgeon, is relieved from duty at Fort Riley, Kansas, and will report in person to the commanding officer, Fort Spokane, Washington, for duty. Par. 7, S. O. 151, A. G. O., June 28, 1890.

Upon recommendation of the Acting Medical Director of the department, Captain Edward C. Carter, Assistant Surgeon, will proceed at once to Fort Sherman and report to the commanding officer for temporary duty at that post. Par. 2, S. O. 69, Dept. of the Columbia, July 1, 1890.

The leave of absence on surgeon's certificate granted Captain Marcus E. Taylor, Assistant Surgeon in S. O. 45, June 13, 1890, Division of the Pacific, is extended five months on surgeon's certificate of disability, with permission to go beyond sea. Par. 6, S. O. 159, A. G. O., July 10, 1890.

Leave of absence for three months, to take effect September 15, 1890, or as soon thereafter as his services can be spared, is granted Captain William H. Arthur, Assistant Surgeon. Par 1, S. O. 160, A. G. O., July 11, 1890.

The leave of absence on surgeon's certificate of disability granted Captain Louis M. Maus, Assistant Surgeon, in S. O. 4, January 6, 1890, from this office, is extended six months on account of sickness. Par. 16, S. O. 160, A. G. O., July 11, 1890.

Upon recommendation of the Medical Director of the department, the contract with Acting Assistant Surgeon, P. L. Rice, is annulled, to take effect to-day. Par. 1, S. O. 69, Dept. of Arizona, July 11, 1890.

Captain L. Brechemin, Assistant Surgeon, will proceed to Monterey, Cal., and report to the Judge Advocate of the General Court Martial in session there, not later than the evening of the 16th instant, as a witness before the Court. When his presence shall no longer required before the Court, he will return to his station, the Presidio, San Francisco. Par. 4, S. O. 57, Dept. of Cal., July 14, 1890.

Captain Edward C. Carter, Assistant Surgeon, is relieved from temporary duty at Fort Sherman and will return to his proper station—Fort Walla Walla. Par. 1, S. O. 76. Dept. of Columbia, July 11, 189.

Official List of Changes in the Medical Corps U. S. Navy (Pacific Stations) from June 20th to July 20th, 1890.

Assistant Surgeon, John E. Page, U. S. N., to Naval Hospital, Mare Island, Cal.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (Division of the Pacific) June 20 to July 20, 1890.

P. A. Surgeon, P. C. Kalloch, relieved from duty at San Francisco, Cal., to assume command of the service, at St. Louis, Mo., July 5, 1890.

Assistant Surgeon B. W. Brown, to proceed to San Francisco, Cal., for temporary duty. June 23, 1890.

Assistant Surgeon B. W. Brown, commissioned as an Assistant Surgeon by the President. June 23, 1890.

Surgeon P. H. Bailhache, to proceed to Eureka, Cal., and Empire City, Oregon, as Inspector. June 5, 1890.

ITEMS.

Dr. Harry M. Sherman has removed his office to 705 Sutter street, near Taylor, street, San Frandisco.

The Alvarenga Prize, of the College of Physicians of Philadelphia, consisting of one year's income of the bequest of the late Señor Alvarenga, of Lisbon, has been awarded to Dr. R. W. Philip, of the Victoria Dispensary for Consumption and Diseases of the Chest, Edinburg, for his essay on Pulmonary Tuberculosis, which will be published by the College.